ORDER NO. EMID961612
A4

Service Manual

PCM Digital Ensemble

SX-PR700 /PR700M

(M), (MC), (XM), (EN), (EH), (EF), (EZ), (EW), (EA),
(EP), (EK), (XL), (XR), (XS), (XD), (XT), (X), (XP)

Photo: SX-PR700M

AREAS

(M):	U.S.A.
(MC):	Canada
(XM):	Mexico
(EN):	Norway, Sweden, Denmark, Finland
(EH):	Holland, Belgium
(EF):	France, Italy
(EZ):	Germany
(EW):	Switzerland
(EA):	Austria
(EP):	Spain, Portugal, Greece, Singapore, South Africa
(EK):	the United Kingdom
(XL):	New Zealand
(XR):	Australia
(XS):	Malaysia
(XD):	Saudi Arabia, Hong Kong, Kuwait
(XT):	Taiwan
(X):	Thailand, Indonesia, Iran, U.A.E., Panama, Argentina, Peru, Brasil
(XP):	Philippines

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

■ Specifications

KEYBOARD	88 KEYS
SOUND GENERATOR	PCM
MAXIMUM NUMBER OF NOTES PRODUCED SIMULTANEOUSLY	64 NOTES
PLAY STYLE	PIANO MODE, KEYBOARD SPLIT, AUTO PLAY CHORD
PIANO	4 SOUNDS : GRAND, UPRIGHT, ELECTRIC, MODERN
SOUNDS	196 SOUNDS GROUP : PIANO & E PIANO, HARPSI & MALLET, GUITAR, SPECIAL PERC, STRINGS & VOCAL, ORGAN & ACCORDION, BRASS, SAX & REED, FLUTE, SYNTH LEAD, BASS, SYNTH PAD, KEYBOARD PERC, PERC & EFFECT
CONDUCTOR	RIGHT1, RIGHT2, LEFT SELECT
PEDAL	SUSTAIN, SOSTENUTO, SOFT
DIGITAL EFFECT	○
DSP EFFECT	○
DIGITAL REVERB	○
BRILLIANCE	○
TRANSPOSE	G-C-F#
RHYTHMS	128 RHYTHMS ×4 VARIATIONS GROUP : 8 BEAT, ROCK, 16 BEAT, FUNK & FUSION, SOUL & DISCO, TRAD DANCE, BIG BAND & SWING, JAZZ COMBO, COUNTRY, U.S. TRAD, SHOW TIME, MARCH & WALTZ, LATIN 1, LATIN 2
METRONOME	○
CONTROLS	MAIN VOLUME, RHYTHM VOLUME, BALANCE/MUTE, START/STOP, INTRO & ENDING 1, INTRO & ENDING 2, FILL IN 1, FILL IN 2, COUNT INTRO, SYNCHRO START, TEMPO/PROGRAM, TAP TEMPO, SPLIT POINT
AUTO PLAY CHORD	BASIC, ADVANCED 1, ADVANCED 2, PIANIST, ON BASS, MUSIC STYLE ARRANGER

Technics

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ONE TOUCH PLAY	○ (ONE TOUCH PLAY/MUSIC STYLE SELECT)
PIANO STYLIST	○
TECHNI-CHORD	○
PANEL MEMORY	2 BANKS (A/B) x 5, SET
SEQUENCER	16 TRACKS RESOLUTION : 96 PULSES PER QUARTER-NOTE STORAGE CAPACITY : APPROX. 30000 NOTES (10 SONGS MAX.) INPUT MODES : EASY RECORD, REALTIME RECORD, STEP RECORD FUNCTIONS : TRACK ASSIGN, EDIT, SONG SELECT/NAME, PUNCH RECORD, MEDLEY
COMPOSER	5 PARTS : BASS, ACCOMP 1, ACCOMP 2, ACCOMP 3, DRUMS STORAGE CAPACITY : APPROX. 10000 NOTES INPUT MODES : EASY COMPOSER, REALTIME RECORD, STEP RECORD FUNCTIONS : COMPOSER CHORD MAP, MODE SELECT, PATTERN COPY, LOAD SINGLE COMPOSER PATTERN, SEQ TO COMP COPY, COMPOSER LOAD MEMORY : 3 BANKS×10 (VARIATION 1-4, INTRO 1, 2, FILL IN 1, 2, ENDING 1, 2)
MEMORY & CONTROL	INITIAL, DISK LOAD, DISK SAVE, DIRECT PLAY, PEDAL SETTING, FLOPPY DISK FORMAT, MEDLEY, PANEL MEMORY MODE, MUSIC STYLE ARRANGER MODE
SOUND SETTING	PART SETTING (VOLUME, PAN, EFFECT, SUSTAIN, KEY SHIFT, TUNING, PITCH BEND RANGE, OTHERS), MIXER, OVERALL TOUCH SENSITIVITY, MASTER TUNING, KEY SCALING, TECHNI-CHORD TYPE, LEFT HOLD, REVERB SETTING, DSP EFFECT SETTING
MIDI	BASIC CHANNEL, CONTROL MESSAGE, OCTAVE SHIFT & LOCAL ON/OFF, REALTIME MESSAGES, COMMON SETTING, MIDI PRESETS, INPUT/OUTPUT SETTING, GENERAL MIDI, P. MEM OUTPUT
EXTERNAL MEMORY	BUILT-IN 3.5 inch FLOPPY DISK DRIVE FOR 2HD (1.44 MB), 2DD (720 KB)
DISPLAY	LCD (320×240 DOTS) PAGE, CONTRAST, EXIT, DISPLAY HOLD
HELP	○
DEMO	○
TERMINALS	PHONES, LINE OUT (R/R+L, L), AUX IN (R/R+L, L), MIDI (IN, OUT, THRU), PEDAL IN
OUTPUT	60 W x 2
SPEAKERS	16 cm×2, 6.5 cm×2, MONITOR SPEAKER (13 cm×6 cm) ×2
POWER REQUIREMENT	280 W, 185 W (NORTH AMERICA AND MEXICO)
	AC120/220/240 V 50/60 Hz AC120 V 60 Hz (NORTH AMERICA AND MEXICO) AC230-240 V 50/60 Hz (EUROPE, AUSTRALIA, NEW ZEALAND AND PHILIPPINES)
DIMENSIONS (W x H x D)	139.7 cm×105 cm×61.4 cm (55"×41-11/32"×24-3/16")
NET WEIGHT	76 kg (167.6 lbs.)
ACCESSORIES	STAND, AC CORD

•Specifications are subject to change without notice for further improvement.

WARNING

To prevent the risk of fire, smoke, or electrical shock and to ensure safe operation, please be sure to follow the safety guidelines below.

1. At places where special caution is required, the necessary safety precautions are clearly labeled or printed, for example, on the cabinet, or on the part concerned. Please follow these safety precautions, and also those listed in the Owner's Manual.

2. Parts which have a ⚠ mark in the circuit diagram or in the parts list are essential for safety. When replacing these parts, be sure to use only the specified parts.

3. Use the specified types for internal wiring (double-insulated wiring, etc.).

4. When replacing parts on the AC primary side (power transformer, electric switch, electrical cord, noise-prevention condenser, etc.), wind the lead wire and secure it by soldering.

5. Do not let the wiring come into contact with heat-emitting devices (fuse resistor, radiator plate, etc.).

6. When replacing the wiring, make sure that it is not in contact with the unfinished or rough edge of a part.

7. When replacing the power cord (except for the plug-in type), tug it from various directions to confirm that it does not slip out of place.

8. Spacing
   If soldering was done on the AC primary circuit, confirm that the interval between the soldered terminals or between the terminal and surrounding metallic parts is at least the minimum required (between the primary circuit and the chassis: at least 6.5 mm; between primary circuit terminals: at least 4.0 mm; between primary circuit terminals and secondary circuit terminals: at least 6.5 mm).

CONTENTS

■INTRODUCTION

SAFETY PRECAUTION..I-2
HOW TO ASSMEBLE THE PIANO.......................I-3
ARRANGEMENT OF CONTROL PANEL.............I-4
KEYBOARD RANGES..I-6
INITIAL SETTING..I-6
TERMINALS...I-7
PARTS LOCATION..I-8
DISASSEMBLY INSTRUCTIONS..........................I-9
SYMPTOMS WHICH APPEAR
TO BE SIGNS OF TROUBLE........................I-12
ERROR DISPLAY..I-15
ABOUT THE SELF-DIAGNOSTIC FUNCTION....I-16
PRECAUTIONS BEFORE SERVICING..............I-18
MIDI IMPLEMENTATION CHART......................I-19

■SCHEMATIC DIAGRAMS

WIRING CONNECTION Diagram........................II-1
BLOCK Diagram...II-3
MAIN MAIN P.C.Diagram..................................II-7
MAIN MAIN P.C.Board....................................II-11
CPL CPR INV CPL/CPR/INV P.C.Board........II-14
CPL CPL P.C.Diagram.....................................II-17
CPR INV CPR/INV P.C.Diagram....................II-19
JACK PKB JACK/PKB...................................II-21
AS ACP HP AS/ACP/HP P.C.Diagram.........II-23
AS ACP HP AS/ACP/HP P.C.Board............II-25
MKB1 MKB2 MKB1/MKB2.............................II-28

■REPLACEMENT PARTS LIST

P.C.Board/WIRING..III-1
CABINET PARTS LOCATION............................III-9
CABINET/CHASSIS PATRS.............................III-11
PACKING..III-14

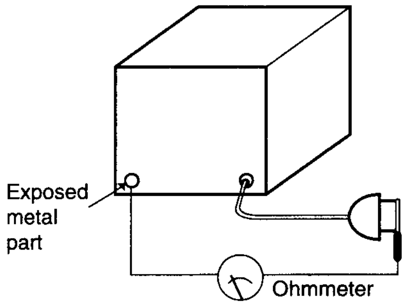
SAFETY PRECAUTION

● Safety Precaution

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only the manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

● Insulation Resistance Test

1. Unplug the power cord and short the prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screw heads, connectors, control shafts, handle brackets, etc. Measurements should range from 4 MΩ to infinity for all exposed parts.

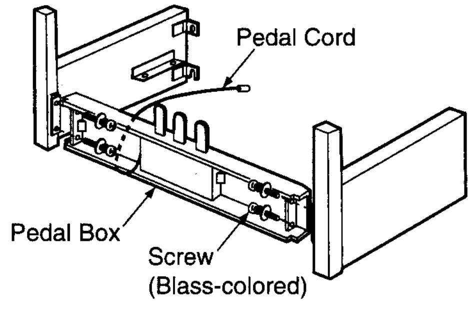


Resistance = 4MΩ to ∞

HOW TO ASSEMBLE THE PIANO

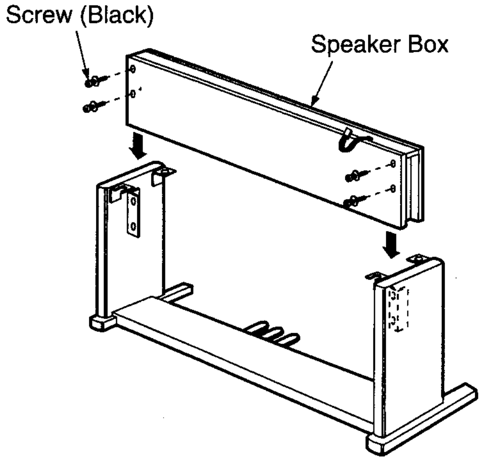
To prevent the piano unit from falling off the stand, secure it firmly with the screws.

1 Assemble the right and left side planks and the pedal box with the 4 blass-colored screws.
- Losen the pedal cord, stowed on the inner side of the pedal box, and extend it.



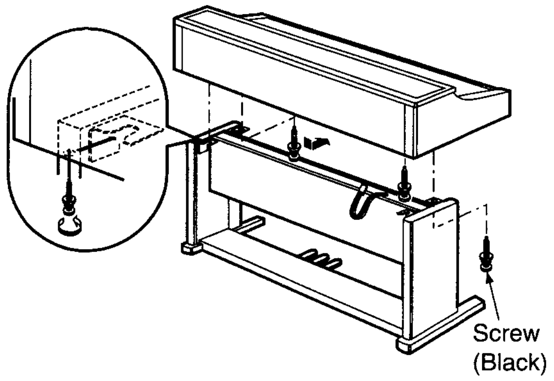
[Fig. 1]

2 Place the stand upright and mount the speaker box onto the L-shaped brackets with 4 black screws.



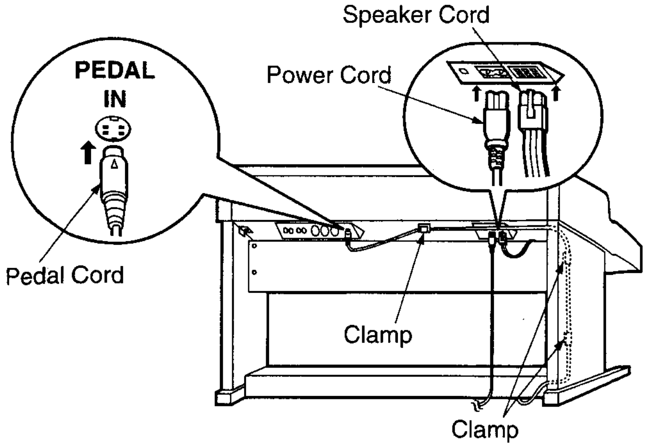
[Fig. 2]

3 Place the piano body on the stand and secure it with 4 black screws.



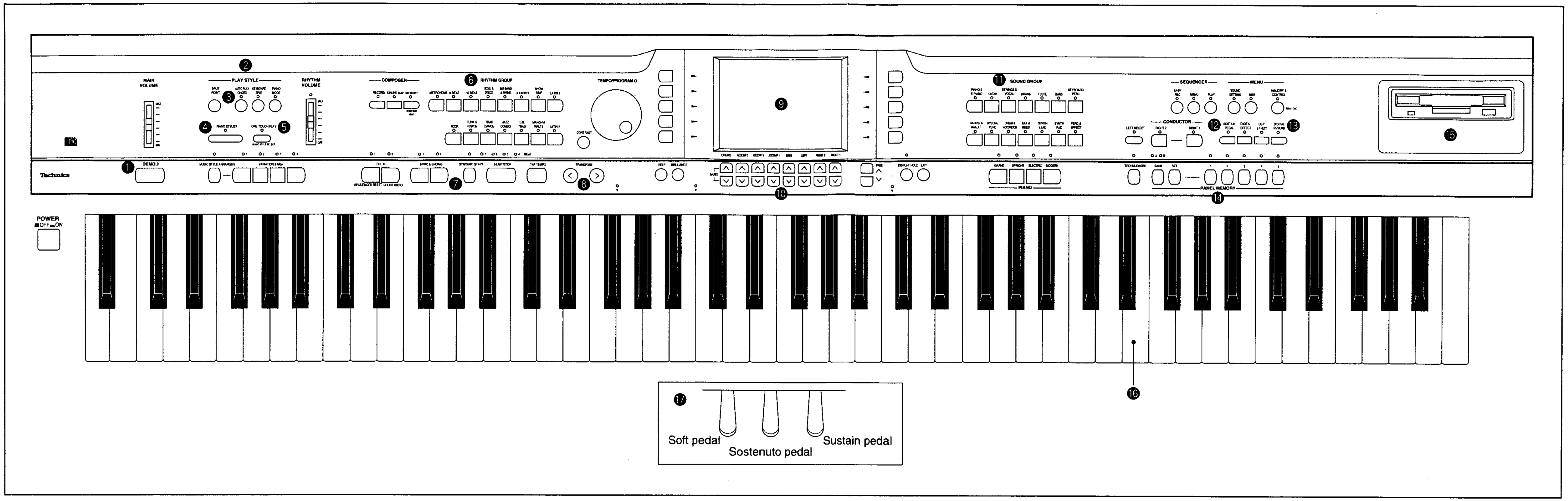
[Fig. 3]

4 Connect the pedal cord, power cord and speaker cord to the terminals located on the rear of the piano unit as shown below.



[Fig. 4]

ARRANGEMENT OF CONTROL PANEL



❶ DEMO
Listen to programmed demonstration tunes which impart the charm of individual sounds and rhythm patterns.

❷ PLAY STYLE
Select standard piano or one of various performance style. (select either a conventional keyboard or a split keyboard.) The location of the split point can be set at G2, C3 or C4 with the **SPLIT POINT** button.

❸ AUTO PLAY CHORD
When you play a chord on the keyboard, an accompaniment pattern which matches the selected rhythm is automatically produced. Select from four modes, according to your level of expertise.

❹ PIANO STYLIST
For performances using piano sounds, just select a piano style, and in seconds an appropriate panel registration is set, including the accompaniment pattern.

❺ ONE TOUCH PLAY/MUSIC STYLE SELECT
This special feature allows you to easily set all the panel settings, including sounds and effects, in just seconds.

❻ RHYTHM GROUP
Various automatic rhythm patterns are stored in the permanent memory.

❼ Rhythm control
The **FILL IN 1**, **2** buttons are used to insert a fill-in pattern during the rhythm performance. Use the **INTRO & ENDING1**, **2** buttons to start a song with an intro pattern or finish with an ending pattern. **START/STOP** is used to start and stop the rhythm instantly. Or turn on the **SYNCHRO START** button to start the rhythm by pressing a key on the left side of the keyboard. Regulate the tempo of the automatic rhythm with the **TEMPO/PROGRAM** dial.

❽ TRANSPOSE
C is the standard setting, but you can raise or lower the key of the entire keyboard in semi-tone steps across an entire octave.

❾ DISPLAY
During the normal performance mode, the selected rhythm, selected sound and tempo etc. are displayed. When setting the functions for the **SEQUENCER**, **COMPOSER**, MIDI and others, the relevant information is displayed.

❿ Volume balance
The volumes for the **DRUMS**, **BASS**, **ACCOMP 1**, **2**, **3**, **LEFT** and **RIGHT 1**, **2** parts are adjusted with their respective volume balance buttons.

⓫ SOUND GROUP
You can select from 4 piano sounds. Or choose the sound of various instruments.

⓬ Effects
DIGITAL EFFECT gives the sound greater depth and breadth. **DSP EFFECT** change the quality of the sound. **SUSTAIN PEDAL** enables or disables the operation of the sustain pedal.

⓭ DIGITAL REVERB
Turn the **DIGITAL REVERB** button on to add reverberation to the sound.

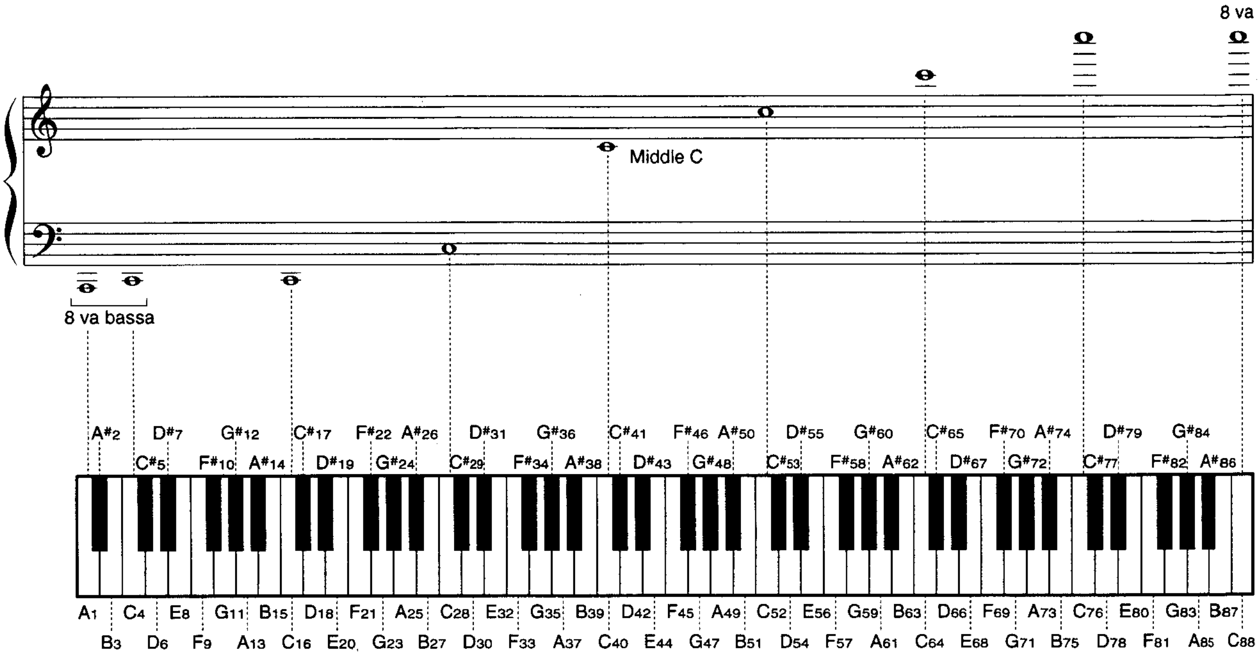
⓮ PANEL MEMORY
Set the desired sounds, effects, split point, volume settings, rhythm, tempo, etc. with the panel controls. Then store the panel settings in one of the programmable memories. While you play, the touch of one button recalls the panel settings instantly.

⓯ Disk Drive
The Disk Drive allows you to store up to 20 performances on a floppy disk.

⓰ Keyboard
This keyboard features Touch Response, by which you control the volume by playing the keys harder or softer.

⓱ Pedals
The sustain pedal and sostenuto pedal apply sustain effects, and the soft pedal works as a damper.

KEYBOARD RANGES


8 va
Middle C
8 va bassa
A#2 D#7 G#12 C#17 F#22 A#26 D#31 G#36 C#41 F#46 A#50 D#55 G#60 C#65 F#70 A#74 D#79 G#84
C#5 F#10 A#14 D#19 G#24 C#29 F#34 A#38 D#43 G#48 C#53 F#58 A#62 D#67 G#72 C#77 F#82 A#86
A1 C4 E8 G11 B15 D18 F21 A25 C28 E32 G35 B39 D42 F45 A49 C52 E56 G59 B63 D66 F69 A73 C76 E80 G83 B87
B3 D6 F9 A13 C16 E20 G23 B27 D30 F33 A37 C40 E44 G47 B51 D54 F57 A61 C64 E68 G71 B75 D78 F81 A85 C88

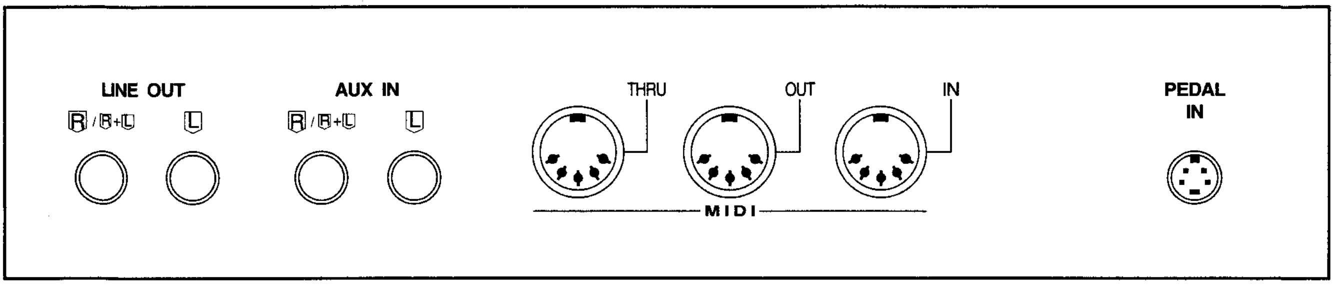
INITIAL SETTING

The following procedure resets all programmable settings, functions and memories to their initialized (factory-preset) status. Use this procedure if the buttons, keys, etc. malfunction, or when you wish to reset the memories and functions.

1. Turn off the **POWER** button.
2. While pressing the three lower leftmost buttons in the **RHYTHM GROUP** section (**ROCK**, **FUNK & FUSION** and **TRAD DANCE**) at the same time, turn the **POWER** button on again.

TERMINALS

(on the rear panel)



LINE OUT (output level 1.5 Vrms, 600 Ω)
By plugging into an external high-power amplifier, the sound can be reproduced at a high volume. (Use the **R/R+L** terminal when outputting monaural sound.)

AUX IN (input level 0.5 Vrms, 6 kΩ)
Other instruments such as a rhythm machine or sound module can be connected to the piano so that the sound is output from the piano. To receive monaural sound, connect the other instruments to the **R/R+L** terminal.

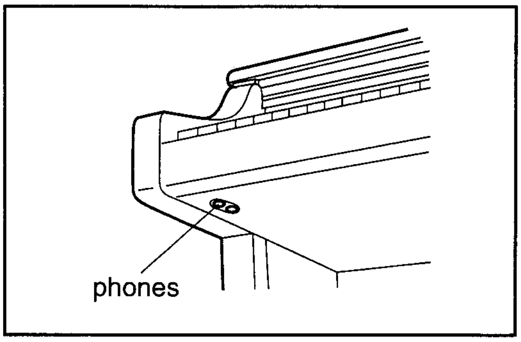
MIDI (Musical Instrument Digital Interface)
MIDI is the standard specification that enables connection to equipments such as synthesizers and personal computers.

IN : The terminal that receives data from external equipment.
OUT : The terminal that transmits data from this instrument to external equipment.
THRU: The terminal that transfers data from the **IN** terminal directly to other equipment.

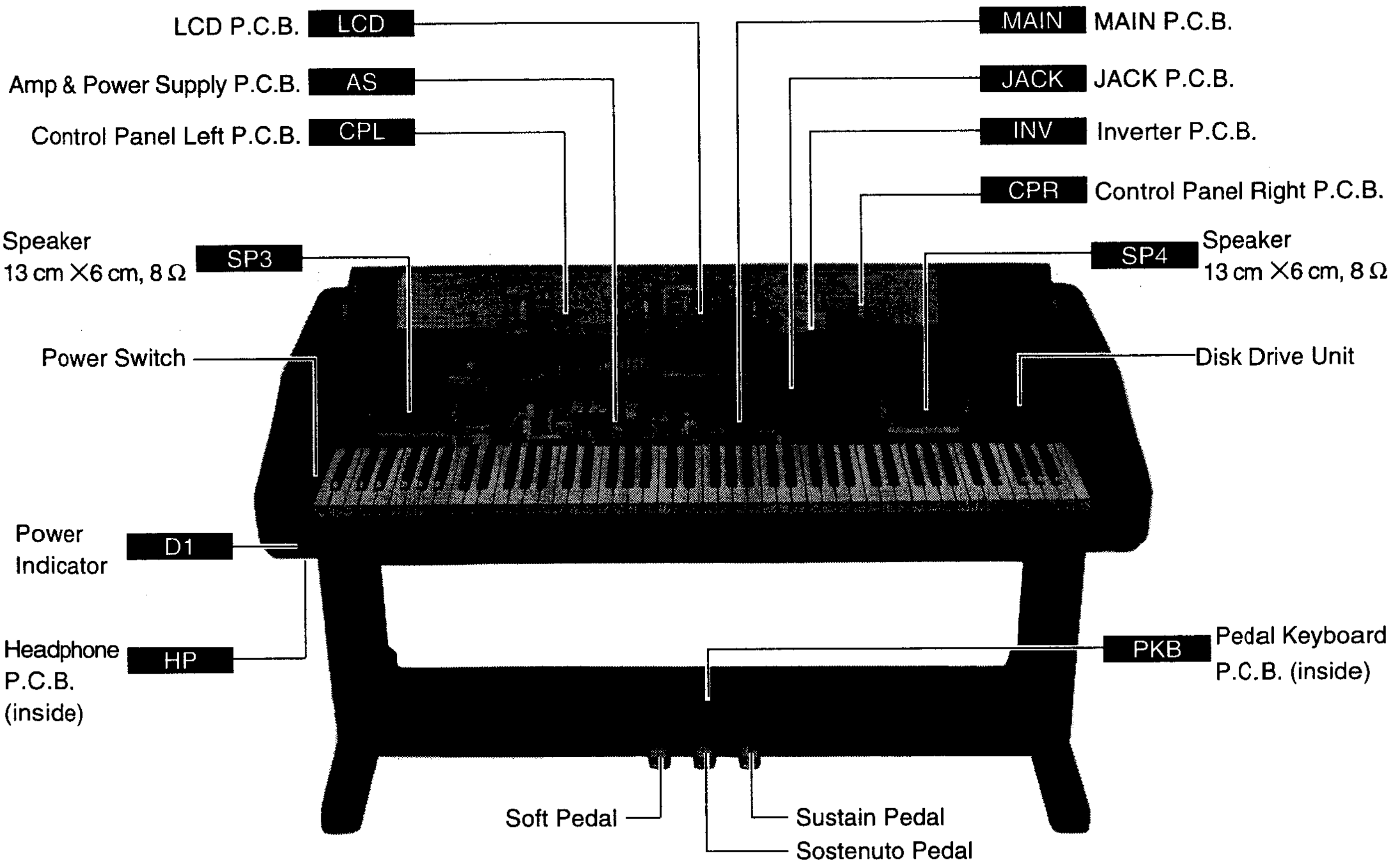
- Use a 5-pin DIN cord (less than 15 m long) for these connections.

PEDAL IN
Connect the included pedal.

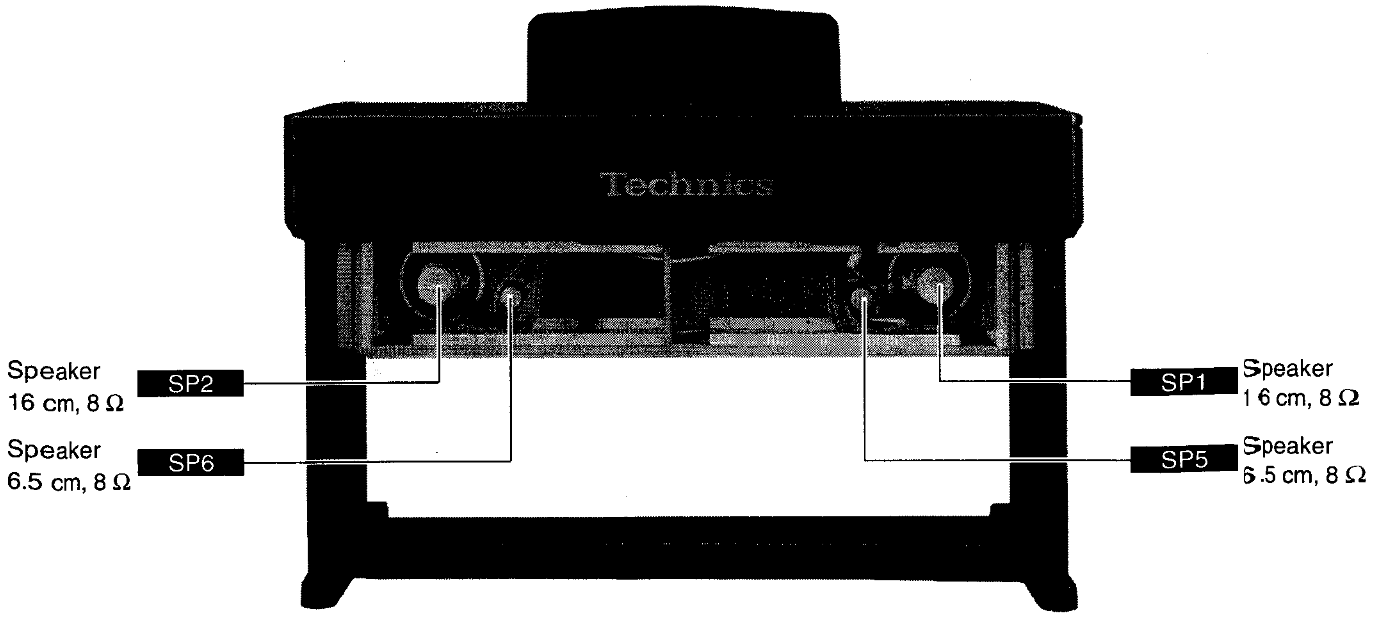
phones×2
For silent practice, headphones may be used. When plugged in, the speaker system is automatically switched off, and sound is heard only through the headphones.



PARTS LOCATION


LCD P.C.B.
LCD
Amp & Power Supply P.C.B.
AS
Control Panel Left P.C.B.
CPL
Speaker
13 cm ×6 cm, 8 Ω
SP3
Power Switch
Power
Indicator
D1
Headphone
P.C.B.
(inside)
HP
MAIN
MAIN P.C.B.
JACK
JACK P.C.B.
INV
Inverter P.C.B.
CPR
Control Panel Right P.C.B.
SP4
Speaker
13 cm ×6 cm, 8 Ω
Disk Drive Unit
PKB
Pedal Keyboard
P.C.B. (inside)
Soft Pedal
Sustain Pedal
Sostenuto Pedal

[Photo-1]


Technics
Speaker
16 cm, 8 Ω
SP2
Speaker
6.5 cm, 8 Ω
SP6
SP1
Speaker
16 cm, 8 Ω
SP5
Speaker
6.5 cm, 8 Ω

[Photo-2]

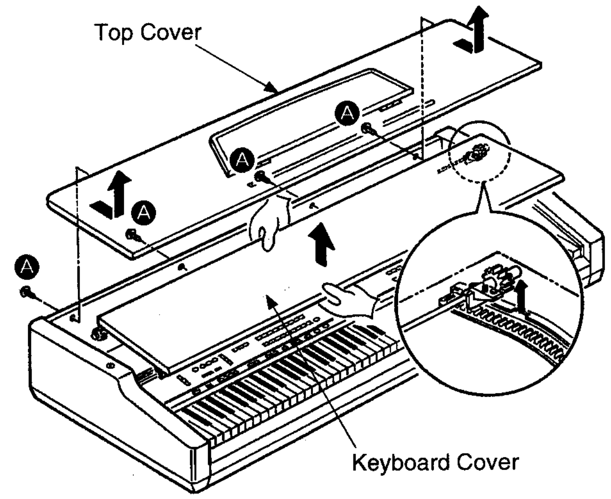
DISASSEMBLY INSTRUCTIONS

1 Removing the top cover

1. Remove the top cover affixing screws (Ⓐ 4 pcs.).
2. Slide the top cover forward and lift up (as shown by the arrows).

2 Removing the keyboard cover

1. Remove the top cover (see step 1).
2. Match the gears of the keyboard cover with the notches in the guide rail, and lift up the keyboard cover.

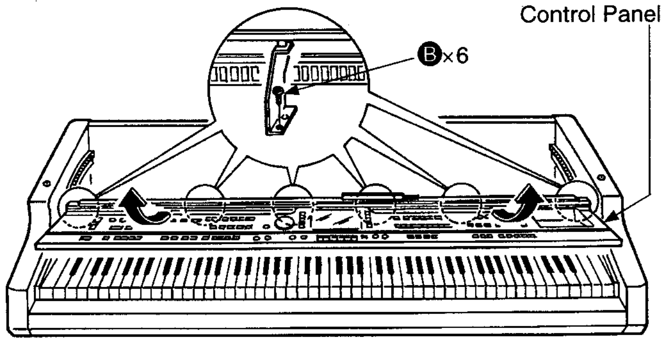


[Fig.5]

3 Removing the control panel

- Pull out the connectors on the printed circuit boards.

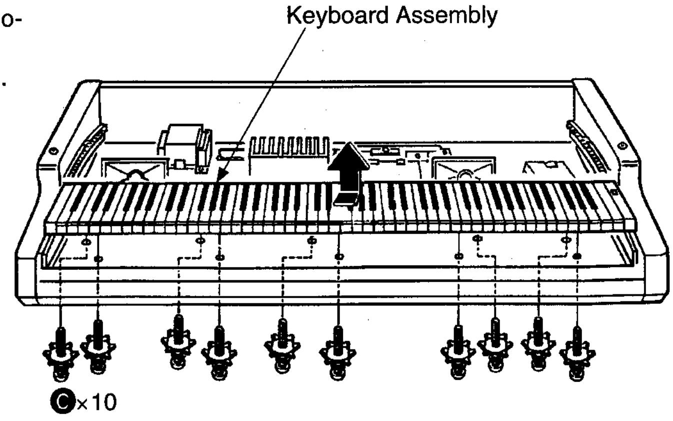
1. Remove the keyboard cover (see step 2).
2. Remove the control panel affixing screws (Ⓑ 6 pcs.).
3. Remove the control panel as shown in Fig. 6.



[Fig.6]

4 Removing the keyboard assembly

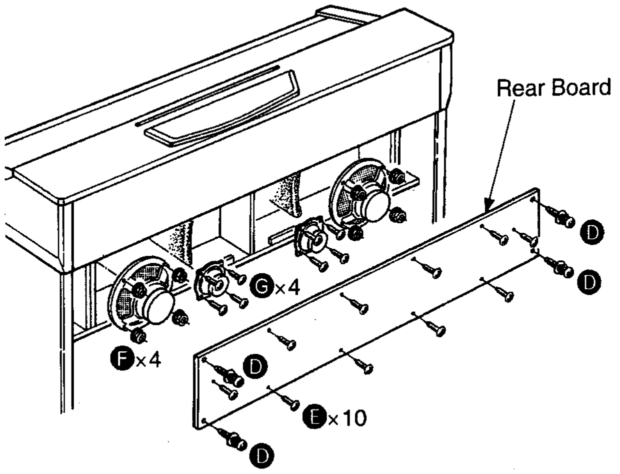
1. Remove the control panel (see step 3).
2. Remove the keyboard assembly affixing screws located on the bottom of the cabinet (Ⓒ 10 pcs.).
3. Remove the keyboard assembly as shown in Fig. 7.



[Fig.7]

5 Removing the speakers

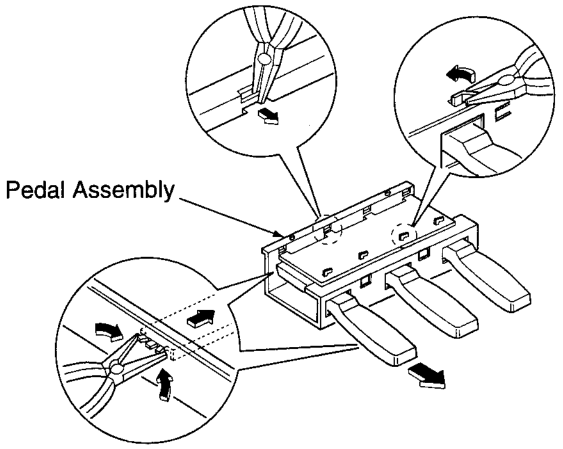
1. Remove the mounting screws for the rear board of the speaker box (Ⓓ 4 pcs. and Ⓔ 10 pcs.).
   - Be careful that the speaker box does not fall off, since it comes free of the L-shaped bracket of the stand.
2. Remove the mounting nuts for the 16 cm speakers (Ⓕ 4 pcs. each).
3. Remove the mounting screws for the 6.5 cm speakers (Ⓖ 4 pcs. each).



[Fig.8]

6 Disassembly of the pedal assembly

1. Remove the pedal assembly from the pedal box.
2. Disassemble the pedal assembly as shown in Fig. 9.



[Fig.9]

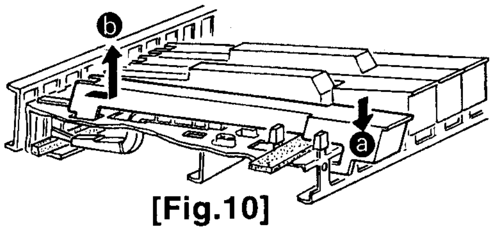
7 Key (s)

Disassembly

1. Remove the keyboard assembly (see step 4).
2. To release the key claw.
   - ⓐ Press the front of the key downward slightly.
   - ⓑ Press the rear of the key forward gently.
3. To remove the key, lift it as shown in Fig. 10.

NOTE:

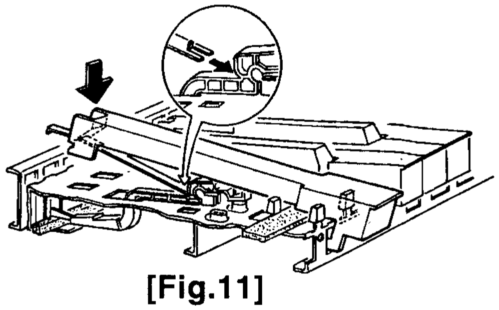
- The key claw is easily broken. Do not apply undue force. Should a key claw break, it can still be used; however, a replacement is recommended.
- If a black key is to be replaced, it is necessary to remove both adjacent white keys.



[Fig.10]

Assembly

1. Insert the front part of the key into the chassis.
2. Insert the plate spring into the hammer notch as shown in Fig. 11.
3. While slowly lowering the key into the chassis, insert the plate spring into the notch at the rear of the key.
4. Carefully insert the key into the opening in the chassis and slide the key towards the rear to lock it in place.



[Fig.11]

8 Removing the printed circuit boards

- Remove the top cover (see step 1).
- Pull out the connectors on the printed circuit boards.

MAIN P.C.B.

1. Remove the MAIN P.C.B. mounting screws (Ⓗ 2 pcs.).
2. Release the claws of the 2 P.C.B. holders.

AS P.C.B.

1. Remove the AS P.C.B. mounting screws (Ⓘ 2 pcs.).
2. Release the claws of the 5 P.C.B. holders.

JACK P.C.B.

1. Remove the MAIN P.C.B.
2. Remove the JACK P.C.B. mounting screws (Ⓙ 3 pcs.).
3. Remove the ground wire holding screws (Ⓚ 2 pcs.).

HP P.C.B.

1. Remove the keyboard assembly (see step 4).
2. Remove the HP P.C.B. mounting screw (Ⓛ 2 pcs.).
3. Remove the ground wire holding screw (Ⓜ 1 pc.).
4. Remove the headphone jack mounting nuts (Ⓝ 2 pcs.).

ACP P.C.B.

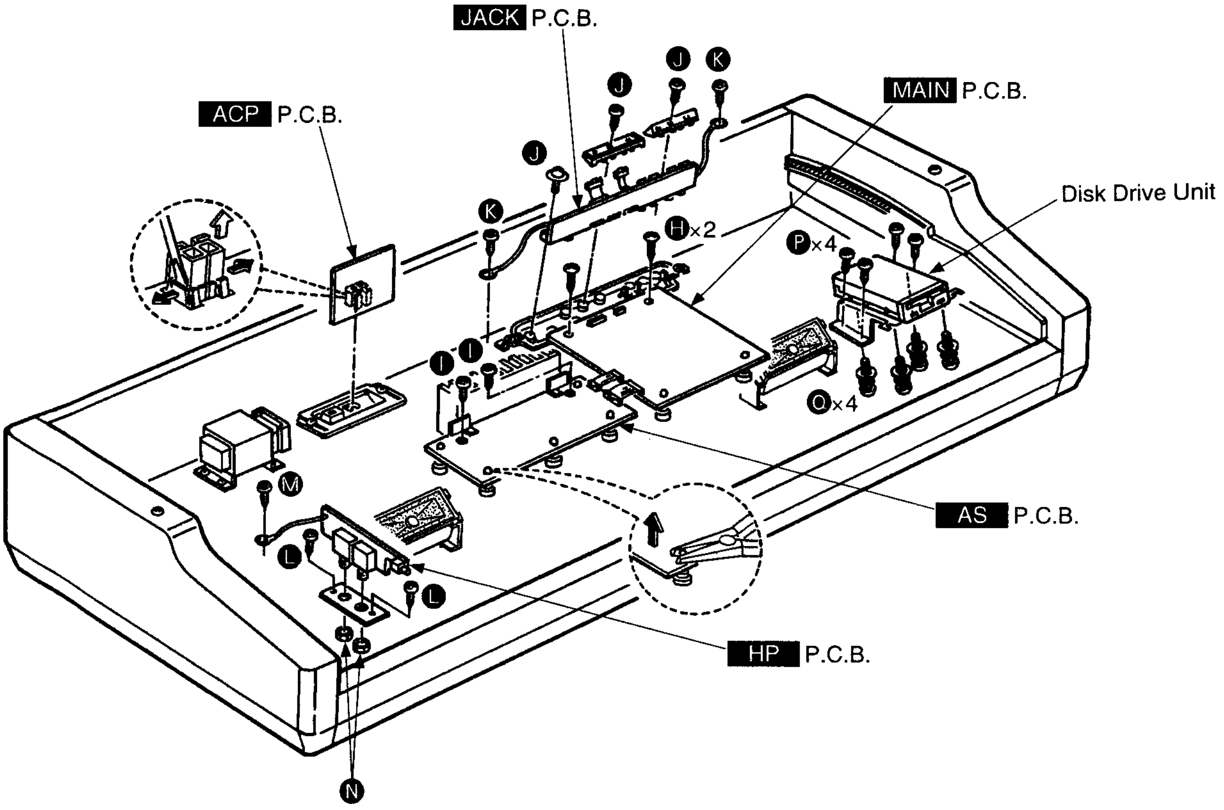
- Release the claws of the AC IN connector bracket.

LCD P.C.B.

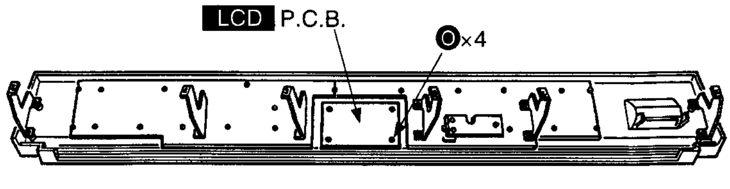
1. Remove the control panel (see step 3).
2. Remove the LCD P.C.B. mounting screws (Ⓞ 4 pcs.).

9 Removing the Disk Drive unit

1. Pull out the Disk Drive unit from the connector.
2. Remove the chassis on which Disk Drive unit is attached (Ⓟ 4 pcs.).
3. Remove the Disk Drive unit mounting screws (Ⓠ 4 pcs.).



[Fig.12]



[Fig.13]

SYMPTOMS WHICH APPEAR TO BE SIGNS OF TROUBLE

The following changes in performance may occur in the Technics Digital Ensemble but do not indicate trouble.

Phenomenon		Remedy
Sounds and effects	The buttons, keys, etc. malfunction.	• Turn off the **POWER** button once, then turn it on again. If this procedure is not successful, turn off the **POWER** button once. Then, while pressing the three lower left buttons in the **RHYTHM GROUP** section (**ROCK**, **FUNK & FUSION** and **TRAD DANCE**) at the same time, turn the **POWER** button on again. (Note that, in this case, all programmable settings, functions and memories return to their factory-preset status.)
	No sound is produced when the keys are pressed.	• The **MAIN VOLUME** is at the minimum setting. Adjust the volume with the **MAIN VOLUME** control. • The volumes for the selected parts are set to the minimum levels. Use the balance buttons to set the volumes of the relevant parts to appropriate levels. • The part is muted. • The local control for a part performed on the keyboard is set to OFF. Set the local control to ON.
	Only percussive instrument sounds are produced when the keyboard is played.	• In the **SOUND GROUP** section, the **KEYBOARD PERC** button is on.
	The volume is very low when the keyboard is played.	• The volume setting in the **SEQUENCER** contents is very low. Follow the INITIAL procedure to reset the settings.
	Some sounds cannot be selected.	• When the GENERAL MIDI status is set to on, The sounds which can be selected and operation which can be executed are limited. Turn the GENERAL MIDI status off to return the instrument to its normal operation.
	The sound you hear is different from the sound you selected.	• This sometimes occurs when you play back **SEQUENCER** or **COMPOSER** data which was created on a different model, or when MIDI data is received from a connected instrument. Select the desired sounds again.
	The sustain does not work even when the sustain pedal is depressed.	• The sustain pedal is not connected. Connect the pedal cord firmly to the **PEDAL IN** terminal on the back of the instrument. • When the **SUSTAIN PEDAL** button is off, the sustain does not work even when the pedal is depressed. Turn on the **SUSTAIN PEDAL** button.
	The sostenuto pedal and soft pedal do not operate properly. For example, when the soft pedal is depressed, the rhythm starts or a fill-in is played.	• Different functions can be programmed in these pedals. You can return the pedals to their original functions by turning off the instrument once, or by using the PEDAL SETTING mode.

Phenomenon		Remedy
Rhythm	The rhythm does not start.	• The **RHYTHM VOLUME** sliding controller is set to **OFF**. Set the volume to an appropriate level. • The **DRUMS** volume is set to the minimum level. Use the balance buttons to set the **DRUMS** volume to an appropriate level. • A rhythm in **COMPOSER MEMORY** with no stored pattern was selected. Select a different rhythm. • The **PLAY** button in the **SEQUENCER** section is on. When you are not playing back the **SEQUENCER** performance, turn off the **PLAY** button. • CLOCK is set to MIDI. Set CLOCK to INTERNAL. • The rhythm does not work when the GENERAL MIDI mode is set to ON. Turn the GENERAL MIDI status off to return the instrument to its normal operation.
AUTO PLAY CHORD	No sound is produced for the automatic accompaniment.	• The **RHYTHM VOLUME** sliding controller is set to **OFF**. Set the volume to an appropriate level. • A rhythm in **COMPOSER MEMORY** with no stored pattern was selected. Select a different rhythm.
	No sound is produced for the automatic accompaniment, or only the sounds of some parts are produced.	• An **ACCOMP** part does not sound if its corresponding volume is set to the minimum level. Use the respective balance buttons to set the **ACCOMP 1**, **2** and **3** volumes to appropriate levels.
SEQUENCER	Storage is not possible.	• The remaining memory capacity of the **SEQUENCER** is 0. Follow the SONG CLEAR or TRACK CLEAR procedure to erase the memory.
	Multi-track storage is not possible.	• The playback track has been selected, but the **START/STOP** button has not been pressed. On the recording display, the track with a REC mark is the track which is ready for recording; a track with a PLAY mark is a track which is ready for playback. To record one track while listening to another (playback) track, press the **START/STOP** button to begin playback.
	The playback measure indication is different from when the performance was recorded.	• The number of measures corresponds to the time signature of the rhythm selected at the start of recording. To change the rhythm in the middle of the song, record the rhythm change in the RHYTHM part.

Phenomenon		Remedy
COMPOSER	Storage is not possible.	• The remaining memory capacity of the **COMPOSER** is 0.
	Setting the time signature and number of measures is not possible.	• The time signature and number of measures cannot be changed for a pattern which is currently recorded in the **COMPOSER**. If you wish to change the time signature and/or measure data, first follow the procedure to clear the memory.
	The playback timing of the rhythm pattern is different from the timing with which it was recorded.	• The QUANTIZE function was on when the pattern was recorded and the timing was automatically corrected. Set the quantize level to a smaller note unit or to OFF when recording.
Disk Drive	The Disk Drive produces a noise during recording or playback.	• This occurs when the Disk Drive is reading a disk. It does not indicate a problem.
	When the procedure to load from a disk is performed, the contents of this instrument's memory are erased.	• When performing the load operation from a disk, this instrument's memory changes to that of the data loaded from the disk. If you wish to preserve a song which is stored in this instrument's memory, save it on a disk before performing the load procedure.
Other	Noise from a radio or TV can be heard.	• This sometimes occurs when electrical equipment such as a radio or TV is used near the instrument. Try moving such electrical equipment further away from the instrument. • The sound may be coming from a nearby broadcast station or amateur radio station. If the sound is bothersome, consult your dealer or service center.
	The cabinet becomes warm during use.	• This instrument has a built-in power source that heats the cabinet to some degree. This is not an indication of trouble.

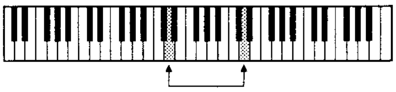
ERROR DISPLAY

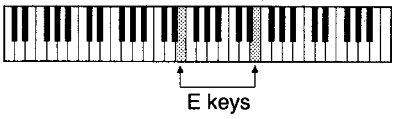
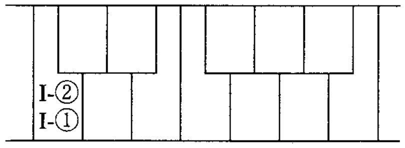
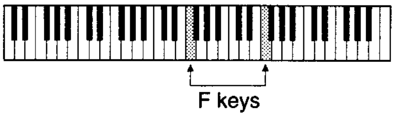
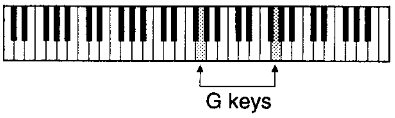
No.	Contents
00	The data on the disk that you are using is for a different product.
01	An error has occurred while the disk was loading. Please try again!
02	There is no disk in the Disk Drive.
03	The file that you tried to load is empty.
05	An error has occurred while the disk was saving. Please try again!
06	The disk that you are using is write protected. Please remove the write protection and try again.
07	The disk that you are using is full. Please use another disk.
08	An error has occurred while the disk was formatting. The disk that you are using may be faulty. Please try formatting another disk.
10	The data is already copy protected.
20	A problem has occurred with your **SEQUENCER** Data. This might be due to a damaged or faulty disk.
21	Memory full
22	It is necessary to press PUNCH OUT to complete this procedure.
23	It is impossible to change the time signature because it has already been set in the existing tracks.
24	A rhythm track already exists. It is impossible to assign two tracks to rhythm.
25	It is only possible to change the velocity on a melody track.
26	It is only possible to merge melody tracks. Tracks such as rhythm, chord and control cannot be merged.
27	It is only possible to copy melody tracks. Tracks such as rhythm, chord and control cannot be copied.
28	This song is too long to be saved as a MIDI file.
29	The MIDI file that you have tried to load exceeds the memory capacity of this instrument and cannot be played. The **SEQUENCER** memory has been cleared.

No.	Contents
30	It is not possible to change the time signature or measure length of a **COMPOSER** pattern after it has been recorded. If you want to proceed, you must first clear the entire **COMPOSER** pattern.
31	The time signature of the pattern from which you are copying is different from the **COMPOSER** memory that you are using. Either: Change the time signature of the **COMPOSER** memory or: Copy from a pattern that has the same time signature
32	Memory full
43	The file that you are trying to load was saved on a previous PR series. It is only possible to load using the "ALL" option.
47	Please select a preset pattern.
55	Special tracks such as CHORD, RHY and CTL exist in the song from which you are copying and are incompatible with the destination song because it is in the GM mode.
56	AUTO PUNCH recording has been unsuccessful because **SEQUENCER** operation was interrupted before the PUNCH OUT measure was reached.
57	The **COMPOSER** pattern you have chosen has a different time signature or number of measures from the other patterns in this COMPOSER CHORD MAP. All of the **COMPOSER** patterns used in a COMPOSER CHORD MAP must have the same time signature and number of measures.
58	The song that you have tried to load exceeds this instrument's available memory and cannot be loaded. The selected song memory has been cleared. Please clear existing songs in the instrument's memory using SONG CLEAR to make more memory available, and try again.
59	RKB and LKB are special tracks for compatibility with sequencer data from previous PR products. They cannot be edited or recorded on.
60	RKB and LKB are special tracks which cannot be used in conjunction with RIGHT 1, RIGHT 2, LEFT and APC tracks. Please re-assign RKB and LKB to any other part and try again.

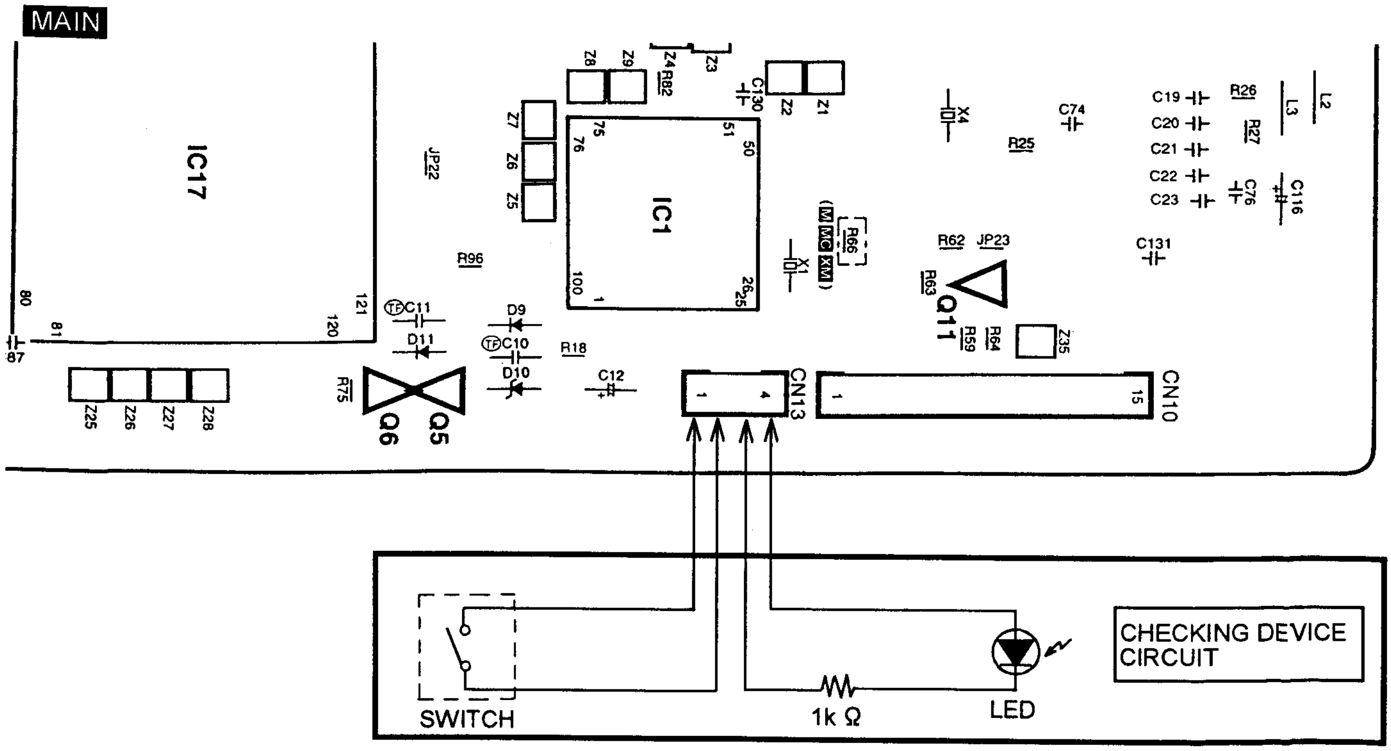
ABOUT THE SELF-DIAGNOSTIC FUNCTION

This model has some self-diagnostic capabilities. When set to the self-diagnostic mode, operation of various components can be verified by following the procedures in the chart below.

<table>
<tr><th>No.</th><th>PCB</th><th>TEST MODE</th><th>Procedure</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">MAIN</td><td>RAM (IC8), ROM (IC2–5, 7) check</td><td>1. Connect the CHECKING DEVICE (refer to page I-17) to CN13 on the MAIN P.C.B., and turn on the CHECKING DEVICE switch.
2. Turn on the power switch.</td></tr>
<tr><td colspan="2">When the power switch is turned on, the LED of the CHECKING DEVICE flashes 8 times. The first 4 flashes are for the RAM check, and the latter 4 flashes are for the ROM check. The order of the LED flashes correspond to the respective IC numbers as shown below. If an IC is defective, the corresponding flash time is longer.
<table>
<tr><td></td><td colspan="4">RAM</td><td colspan="4">ROM</td></tr>
<tr><td>Examples</td><td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td></tr>
<tr><td>1. RAM OK, ROM OK →</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr>
<tr><td>2. RAM OK, ROM (IC7) defective →</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>▬</td><td>●</td><td>●</td></tr>
<tr><td>3. RAM (IC8) defective, ROM OK →</td><td>▬</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr>
<tr><td></td><td>IC8</td><td></td><td></td><td></td><td>IC2
IC3
IC4
(IC5)</td><td>IC7</td><td></td><td></td></tr>
</table>
NOTE : ● indicates short flash time
▬ indicates long flash time</td></tr>
<tr><td rowspan="2">2</td><td rowspan="2">CPL
CPR</td><td>CPU (IC1) check</td><td>1. Connect the CHECKING DEVICE to CN13 on the MAIN P.C.B. (The Checking Device switch should be off).
2. Press and hold the two D keys shown below, and then turn on the power switch.
 </td></tr>
<tr><td colspan="2">When the power switch is turned on, the LED of the CHECKING DEVICE flashes 4 times. The order of the LED flashes corresponds to the CPU (IC) on the respective P.C.B.s as shown below. If an IC is defective, the corresponding flash time is longer.
<table>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td></tr>
<tr><td>1. CPL (IC1), CPR (IC1) OK →</td><td>●</td><td>▬</td><td>▬</td><td>●</td></tr>
<tr><td>2. CPL (IC1) defective →</td><td>▬</td><td>▬</td><td>▬</td><td>●</td></tr>
<tr><td>3. CPR (IC1) defective →</td><td>●</td><td>▬</td><td>▬</td><td>▬</td></tr>
<tr><td></td><td>CPL
(IC1)</td><td></td><td></td><td>CPR
(IC1)</td></tr>
</table>
NOTE : ● indicates short flash time
▬ indicates long flash time</td></tr>
</table>

No.	PCB	TEST MODE	Procedure
3	**MAIN**	Wave ROM check MAIN: IC18, IC22	Press and hold the two E keys shown below, and then turn on the power switch.  E keys
		When set to the self-diagnostic mode, the Wave ROM outputs a sine wave. The Wave ROMs correspond to the keyboard keys as shown in the diagram to the right. When a key is pressed, the corresponding sine wave sound is produced. If no sound is produced, or if the sound is distorted, the Wave ROM corresponding to that key is defective.	• The key number indicates the Wave ROM number. (I-①:IC18, I-②:IC22) 
4	**CPL** **CPR**	Control Panel LED check	Press and hold the two F keys shown below, and then turn on the power switch.  F keys
		Press the buttons on the control panel and confirm that the corresponding LEDs light.	
5	**LCD**	LCD check	Press and hold the two G keys shown below, and then turn on the power switch.  G keys
		When set to the self-diagnostic mode, the test pattern is shown on the display. Monitor the display to confirm that the characters appear correctly.	

■ Connection between serving CHECKING DEVICE and MAIN P.C.B.


MAIN
IC17
IC1
Z8
Z9
Z4
Z3
R82
C130
Z2
Z1
Z7
Z6
Z5
JP22
R96
C11
D9
D11
C10
D10
R18
C12
R75
Q6
Q5
Z25
Z26
Z27
Z28
X4
C74
R25
X1
R66
R62
JP23
R63
Q11
R59
R64
Z35
C19
C20
C21
C22
C23
R26
R27
L3
L2
C76
C116
C131
CN13
CN10
SWITCH
1k Ω
LED
CHECKING DEVICE CIRCUIT

PRECAUTIONS BEFORE SERVICING

Precautions for measuring of the output waveforms.

1. The waveform was measured with a "National Digital Storage Oscilloscope VP-5730A". Therefore the waveforms of musical tone signals shown may differ somewhat due to the difference in the timing of triggering.
2. Since the 1/10 test probe is used, the indicated voltage value on the bottom part of each waveform photo is 1/10 of the actual value (e.g. 0.2 V/cm should be 2.0 V/cm).
3. To measure the waveforms, first set this unit to the self-diagnostic mode (refer to page I-17, No. 3). The Wave ROM output will then be output as a sine wave to facilitate the servicing check.

Important safety notice:

Components identified by a ⚠ mark have special characteristics impotant for safety.
When replacing any of these components, use only manufacture's specified parts.

Symbolic Marks

The symbolic marks for resistors and capacitors which used in this circuits are classified as following TABLE-1 and TABLE-2.

1. RESISTORS
   - Resistors without symbolic mark are FIXED CARBON FILM RESISTORS (ERD-type).
   - All resistors are 1/4 WATT, ±5 % TOLERANCE unless otherwise designated in schematic diagrams.

(TABLE-1)

SYMBOL	SPECIFICATION	SYMBOL	SPECIFICATION
Ⓕ	Fixed Carbon Film Resistors "FLAME-PROOF" (ERD—F—type)	Ⓕ	Fixed Metal Film Resistors "FLAME-PROOF" (ERX—type)
Ⓕ	Fixed Wire Wound Resistors "FLAME-PROOF" (ERF—type)	🄵	Fuse Type Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERQ—type)
Ⓕ	Fixed Metal Oxide Film Resistors "FLAME-PROOF" (ERG—type)	🄵	Fuse Type Fixed Carbon File Resistors "FLAME-PROOF" (ERD2FC—type)
Ⓖ	Fixed Metal Film Resistors (Precision and High Stability) (ERO—type)		

2. CAPACITORS
   - Capacitors without symbolic mark are POLYESTER CAPACITORS. (ECQM-type, ECQG-type, ±10 % Tolerance)
   - Polarized capacitors without symbolic mark are Aluminum Electrolytic Capapcitors. (ECEA-type, ±20 % Tolerance)

(TABLE-2)

SYMBOL	SPECIFICATION	TYPE
Ⓝ	Non-Polarized Electrolytic Capacitors	ECEA_KN_type
Ⓨ	Non-Polarized Electrolytic (for Network system)	ECEA_Y_type
Ⓣ	Tantalum Solid Electrolytic Capacitors	ECS_type
(TF)	Metalized Plastic Film Capacitors (TF Series)	ECQV_type
○	Temperature Compensating Ceramic Capacitors	ECC_type
	High-Dielectric Constant Ceramic Capacitors	ECK_type ECR_type
	Axial Lead Ceramic Capacitors	ECB_type
	Metalized Polyester Film Capacitors for Across the Line	ECQ_EW_type
	Aluminum Electrolytic Capacitors for Smoothing Circuit	ECES_type
	Multilayer Ceramic Chip Capacitors	ECUV_type

MIDI IMPLEMENTATION CHART

Digital Ensemble [SX-PR700/PR700M] **(Transmitted)**

Function		RIGHT1,2,LEFT, PART4～15	PART16	ACMP1	ACMP2,3	BASS	DRUMS	CHORD	CONTROL	Remarks
Basic Channel	Default	1-16	1-16	1-16	1-16	1-16	1-16	1-16	1-16	memorized
	Changed	1-16	1-16	1-16	1-16	1-16	1-16	1-16	1-16	
Mode	Default	3	3	3	3	3	3	3	3	OMNI OFF,POLY MODE
	Messages	×	×	×	×	×	×	×	×	
	Altered	–	–	–	–	–	–	–	–	
Note Number		0-119	0-119	0-119	0-119	0-119	0-119	0-119	–	Changes depending on the position of the transpose control,octave shift,and drums type.
	True voice	–	–	–	–	–	–	–	–	
Velocity	Note ON	○	○	○	○	○	○	○	–	
	Note OFF	×	×	×	×	×	×	×	–	
After Touch	Key's	×	×	×	×	×	×	×	–	Transmitted during SEQUENCER playback.
	Ch's	○×*	×	×	×	×	×	×	–	
Pitch Bend		○×*	×	○×*	○×*	○×*	×	○×*	×	Transmitted during SEQUENCER playback and during rhythm performance.
Control Change	0,32	○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	bank select MSB, LSB
	1	○×*	×	○×*	○×*	○×*	×	○×*	×	modulation
	6,38	○×*	×	×	×	×	×	×	×	data entry MSB, LSB
	7	○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	volume
	10	○×*	×	○×*	○×*	○×*	×	×	×	panpot
	11	○×*	○×*	○×*	○×*	○×*	○×*	×	×	expression
	64	○×*	×	○×*	○×*	○×*	×	×	×	sustain
	66	○	×	×	×	×	×	×	×	sostenute
	67	○	×	×	×	×	×	×	×	soft
	80	×	×	○×*	×	×	×	×	×	auto play chord
	82	×	×	×	×	×	○×*	×	×	intro, fill in, ending
	91	○×*	○×*	○×*	○×*	○×*	○×*	○×*	○×*	reverb
	93	○×*	○×*	×	×	×	×	×	×	DSP effect
	94	○×*	×	○×*	○×*	○×*	×	○×*	×	digital effect
	100,101	○×*	×	×	×	×	×	×	×	RPN LSB, MSB
	120	○	○	×	×	×	×	×	×	all sound off
	121	○×*	○×*	×	×	×	×	×	×	reset all cotrollers
Prog Change		○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	Changes depending on program change mode and prog.cng to p.mem.
	True #	–	–	–	–	–	–	–	–	
System exclusive		○								
System common	Song Pos	○×*								
	Song Sel	○×* (0-19)								
	Tune	×								
System Real Time	Clock	○								
	Commands	○×*								start/stop,continue
Aux Messages	Local ON/OFF	×	×	×	×	×	×	×	–	
	All notes OFF	×	×	×	×	×	×	×	–	
	Active Sense	○								
	Reset	×								
Notes		○×*…………Whether or not the data for each of these items is transmitted can be set.								

Mode 1:	OMNI ON, POLY	Mode 2:	OMNI ON, MONO	○:Yes
Mode 3:	OMNI OFF, POLY	Mode 4:	OMNI OFF, MONO	×:No

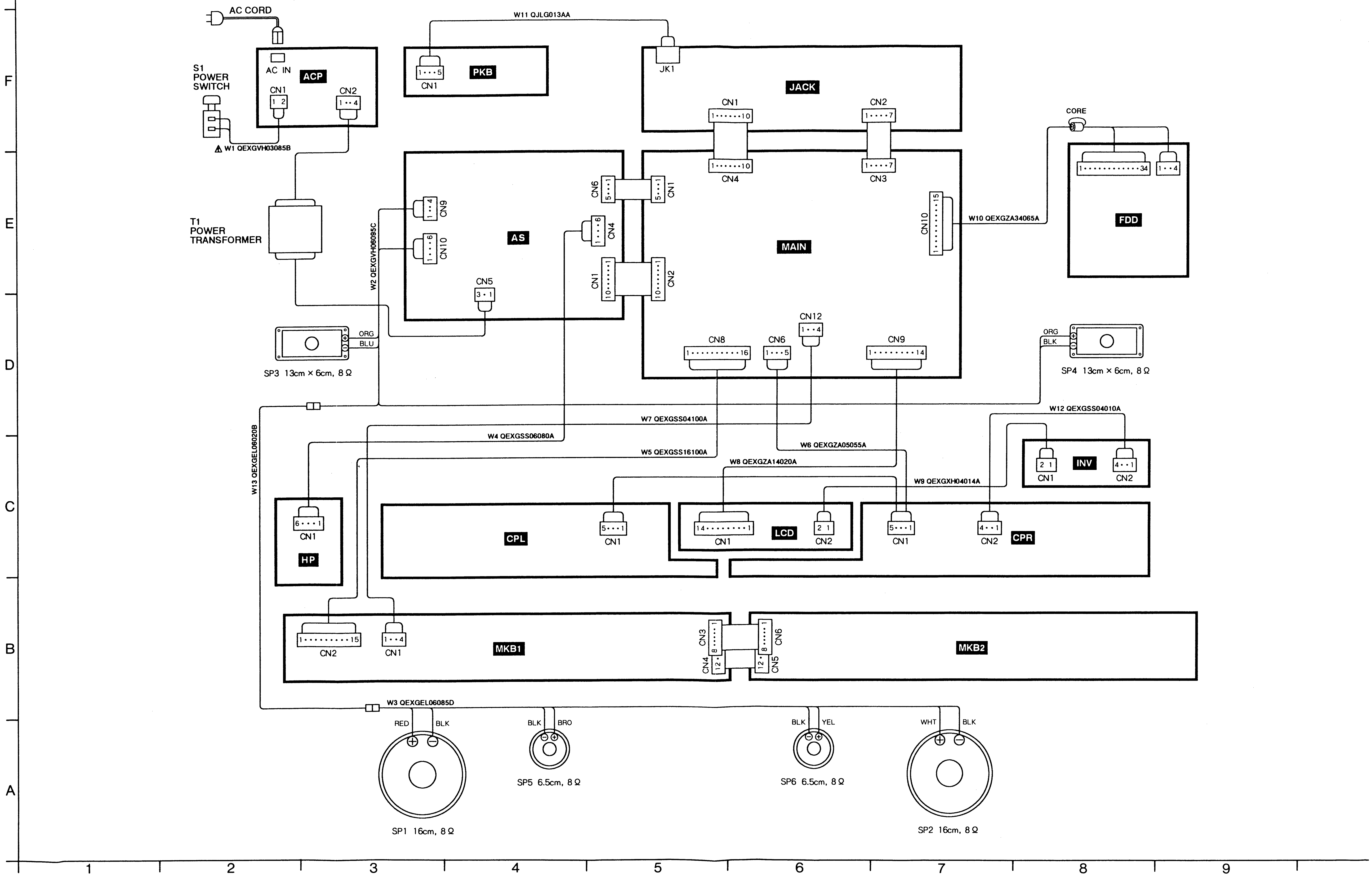
Digital Ensemble [SX-PR700/PR700M] **(Recognized)**

Function		RIGHT1,2,LEFT, PART4∼15	PART16	ACMP1	ACMP2,3	BASS	DRUMS	CHORD	CONTROL	Remarks
Basic Channel	Default	1-16	1-16	1-16	1-16	1-16	1-16	1-16	1-16	memorized
	Changed	1-16	1-16	1-16	1-16	1-16	1-16	1-16	1-16	
Mode	Default	3	3	3	3	3	3	3	3	OMNI OFF,POLY MODE
	Messages	×	×	×	×	×	×	×	×	
	Altered	—	—	—	—	—	—	—	—	
Note Number		0-127	0-127	0-127	0-127	0-127	0-127	0-127	—	Changes depending on the position of the transpose control,octave shift, and drums type.
	True voice	0-127	0-127	0-127	0-127	0-127	0-127	0-127	—	
Velocity	Note ON	○	○	○	○	○	○	○	—	
	Note OFF	×	×	×	×	×	×	×	—	
After Touch	Key's	×	×	×	×	×	×	×	—	
	Ch's	○×*	×	×	×	×	×	×	—	
Pitch Bend		○×*	×	○×*	○×*	○×*	×	○×*	×	
Control Change	0,32	○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	bank select MSB, LSB
	1	○×*	×	○×*	○×*	○×*	×	○×*	×	modulation
	6,38	○×*	×	×	×	×	×	×	×	data entry MSB, LSB
	7	○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	volume
	10	○×*	×	○×*	○×*	○×*	×	×	×	panpot
	11	○×*	○×*	○×*	○×*	○×*	○×*	×	×	expression
	64	○×*	×	○×*	○×*	○×*	×	×	×	sustain
	66	○	×	×	×	×	×	×	×	sostenute
	67	○	×	×	×	×	×	×	×	soft
	80	×	×	○×*	×	×	×	×	×	auto play chord
	82	×	×	×	×	×	○×*	×	×	intro, fill in, ending
	91	○×*	○×*	○×*	○×*	○×*	○×*	○×*	○×*	reverb
	93	○×*	○×*	×	×	×	×	×	×	DSP effect
	94	○×*	×	○×*	○×*	○×*	×	○×*	×	digital effect
	100,101	○×*	×	×	×	×	×	×	×	RPN LSB, MSB
	120	○	○	○	○	○	○	○	×	all sound off
	121	○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	reset all cotrollers
Prog Change		○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	Changes depending on program change mode and prog.cng to p.mem.
	True #	0-127	0-127	0-127	0-127	0-127	0-127	0-127	—	
System exclusive		○								
System common	Song Pos	○×*								
	Song Sel	○×* (0-19)								
	Tune	×								
System Real Time	Clock	○								
	Commands	○×*								start/stop,continue
Aux Messages	Local ON/OFF	×	×	×	×	×	×	×	—	
	All notes OFF	○	○	○	○	○	○	○	—	
	Active Sense	○								
	Reset	×								
Notes		○×*············Whether or not the data for each of these items is received can be set.								

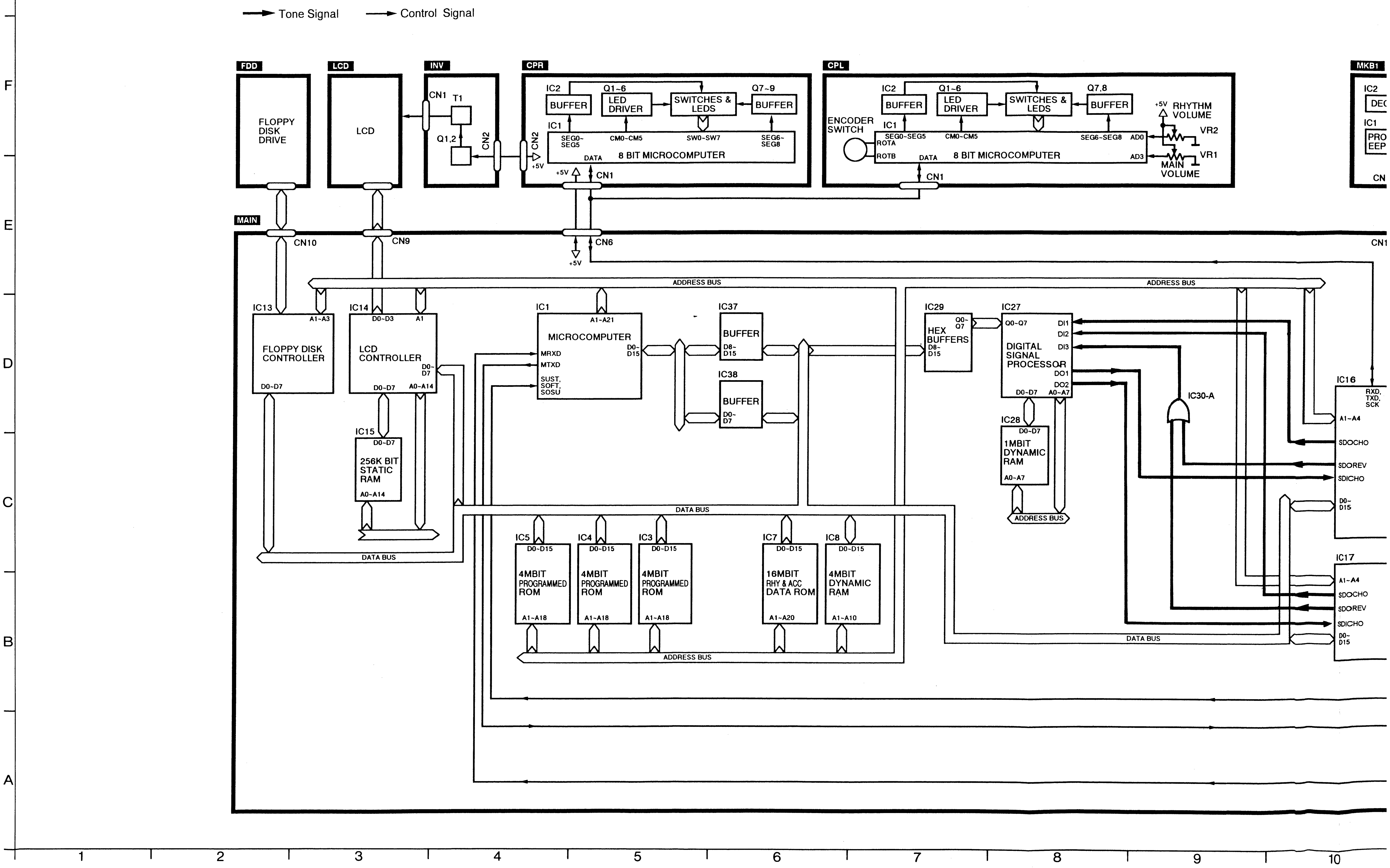
Mode 1:	OMNI ON, POLY	Mode 2:	OMNI ON, MONO	○:Yes
Mode 3:	OMNI OFF, POLY	Mode 4:	OMNI OFF, MONO	×:No

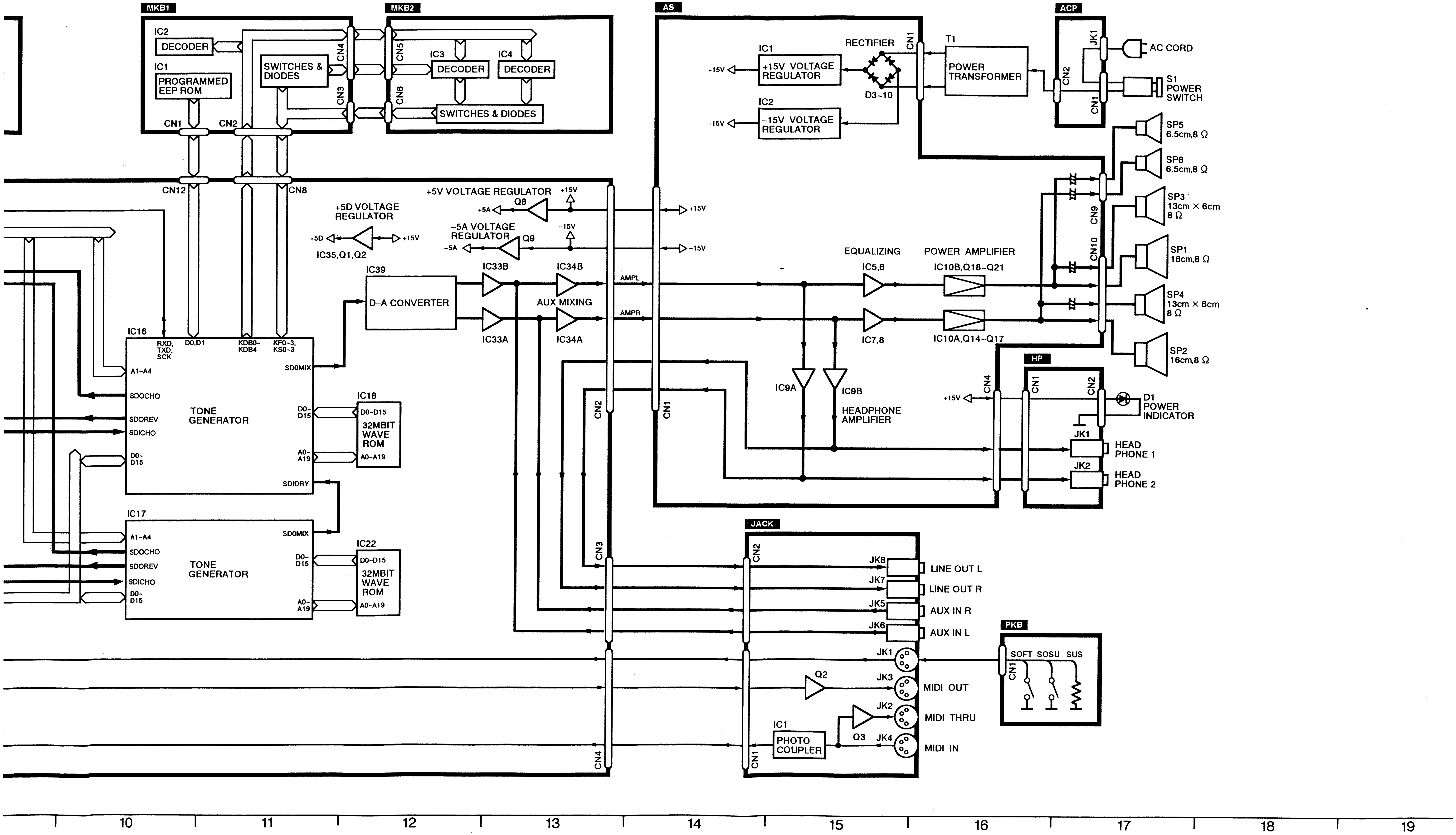
MEMO

WIRING CONNECTION Diagram

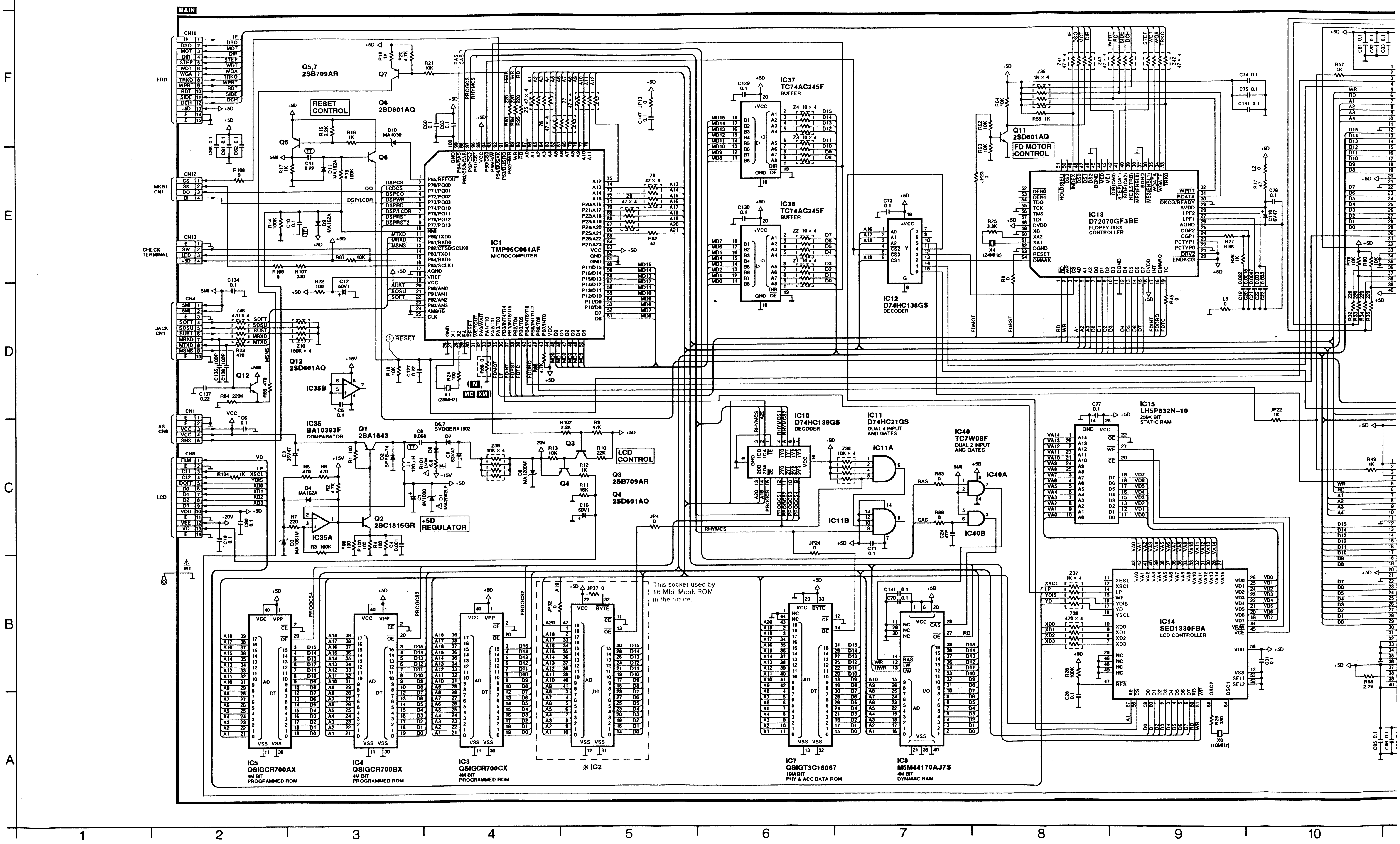

AC CORD
S1
POWER
SWITCH
AC IN
ACP
CN1
CN2
⚠ W1 QEXGVH03085B
W11 QJLG013AA
PKB
CN1
JK1
JACK
CN1
CN2
CN4
CN3
CORE
FDD
W10 QEXGZA34065A
MAIN
CN10
CN1
CN2
CN6
AS
CN9
CN10
CN4
CN5
W2 QEXGVH06095C
T1
POWER
TRANSFORMER
ORG
BLU
SP3 13cm × 6cm, 8 Ω
CN8
CN6
CN12
CN9
ORG
BLK
SP4 13cm × 6cm, 8 Ω
W13 QEXGEL06020B
W7 QEXGSS04100A
W4 QEXGSS06080A
W5 QEXGSS16100A
W6 QEXGZA05055A
W8 QEXGZA14020A
W9 QEXGXH04014A
W12 QEXGSS04010A
INV
CN1
CN2
HP
CN1
CPL
CN1
LCD
CN1
CN2
CPR
CN1
CN2
MKB1
CN2
CN1
CN3
CN4
MKB2
CN6
CN5
W3 QEXGEL06085D
RED
BLK
BLK
BRO
BLK
YEL
WHT
BLK
SP1 16cm, 8 Ω
SP5 6.5cm, 8 Ω
SP6 6.5cm, 8 Ω
SP2 16cm, 8 Ω
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

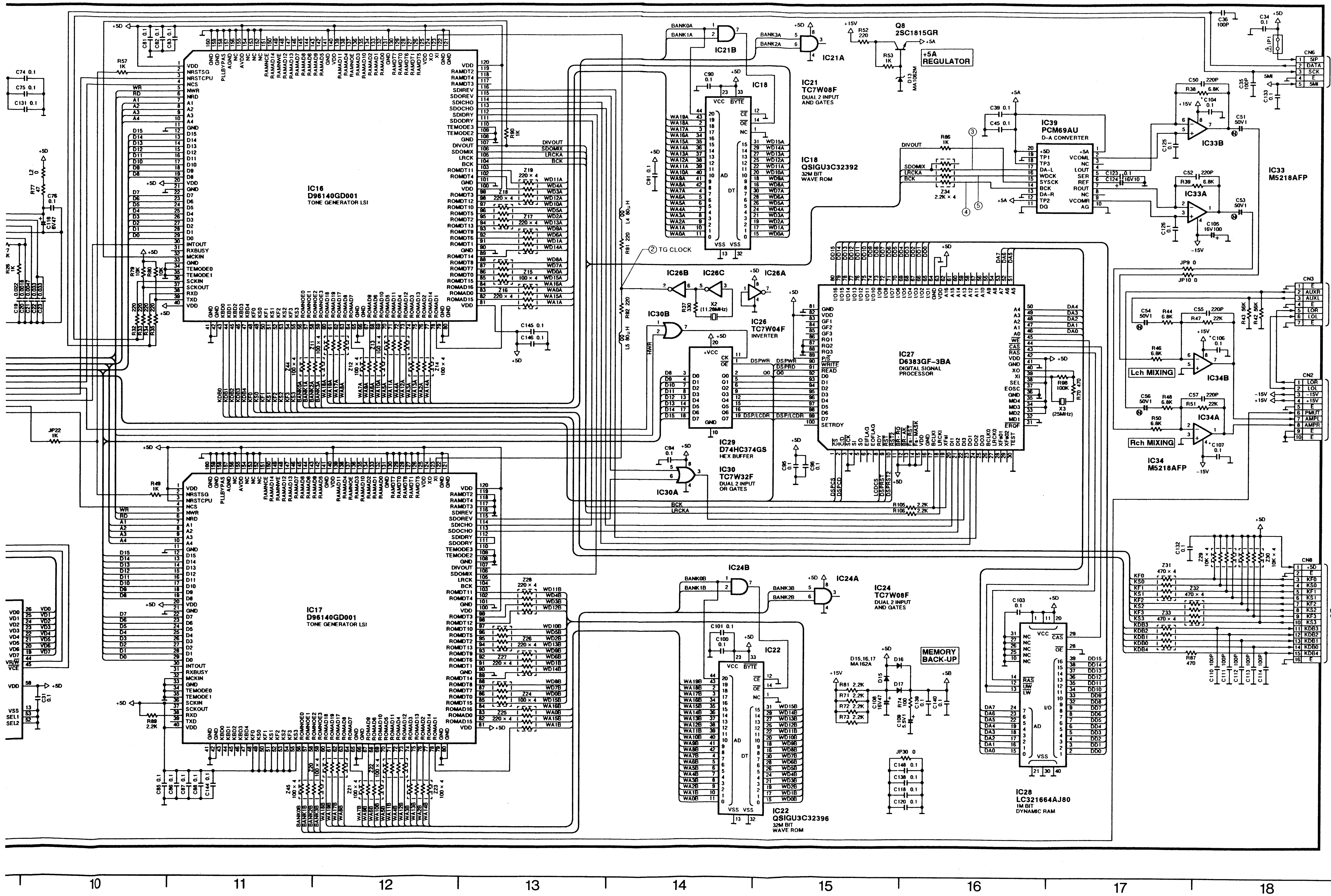
BLOCK Diagram


Tone Signal
Control Signal
FDD
FLOPPY DISK DRIVE
LCD
LCD
INV
CN1
T1
Q1,2
CN2
CPR
IC2
BUFFER
Q1~6
LED DRIVER
SWITCHES & LEDS
Q7~9
BUFFER
IC1
SEG0~SEG5
CM0~CM5
SW0~SW7
SEG6~SEG8
DATA
8 BIT MICROCOMPUTER
+5V
CN1
CPL
IC2
BUFFER
Q1~6
LED DRIVER
SWITCHES & LEDS
Q7,8
BUFFER
ENCODER SWITCH
IC1
ROTA
ROTB
SEG0~SEG5
CM0~CM5
SEG6~SEG8
AD0
AD3
DATA
8 BIT MICROCOMPUTER
CN1
+5V
RHYTHM VOLUME
VR2
VR1
MAIN VOLUME
MKB1
IC2
DEC
IC1
PRO
EEP
CN
MAIN
CN10
CN9
CN6
+5V
CN1
ADDRESS BUS
ADDRESS BUS
IC13
A1~A3
FLOPPY DISK CONTROLLER
D0~D7
IC14
D0~D3
A1
LCD CONTROLLER
D0~D7
D0~D7
A0~A14
IC15
D0~D7
256K BIT STATIC RAM
A0~A14
IC1
A1~A21
MICROCOMPUTER
MRXD
MTXD
SUST, SOFT, SOSU
D0~D15
IC37
BUFFER
D8~D15
IC38
BUFFER
D0~D7
IC29
Q0~Q7
HEX BUFFERS
D8~D15
IC27
Q0~Q7
DI1
DI2
DI3
DIGITAL SIGNAL PROCESSOR
DO1
DO2
D0~D7
A0~A7
IC28
D0~D7
1MBIT DYNAMIC RAM
A0~A7
ADDRESS BUS
IC30-A
IC16
RXD, TXD, SCK
A1~A4
SDOCHO
SDOREV
SDICHO
D0~D15
IC17
A1~A4
SDOCHO
SDOREV
SDICHO
D0~D15
DATA BUS
DATA BUS
DATA BUS
IC5
D0~D15
4MBIT PROGRAMMED ROM
A1~A18
IC4
D0~D15
4MBIT PROGRAMMED ROM
A1~A18
IC3
D0~D15
4MBIT PROGRAMMED ROM
A1~A18
IC7
D0~D15
16MBIT RHY & ACC DATA ROM
A1~A20
IC8
D0~D15
4MBIT DYNAMIC RAM
A1~A10
ADDRESS BUS
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10


MKB1
IC2
DECODER
IC1
PROGRAMMED EEP ROM
SWITCHES & DIODES
CN4
CN3
CN1
CN2
MKB2
CN5
CN6
IC3
DECODER
IC4
DECODER
SWITCHES & DIODES
CN12
CN8
+5D VOLTAGE REGULATOR
+5D
+15V
IC35,Q1,Q2
+5V VOLTAGE REGULATOR
Q8
+5A
+15V
-5A VOLTAGE REGULATOR
Q9
-5A
-15V
IC39
D-A CONVERTER
IC33B
IC33A
IC34B
IC34A
AUX MIXING
AMPL
AMPR
IC16
RXD, TXD, SCK
D0,D1
KDB0~KDB4
KF0-3, KS0-3
A1~A4
SDOCHO
SDOREV
SDICHO
D0~D15
TONE GENERATOR
SD0MIX
D0~D15
A0~A19
SDIDRY
IC18
D0~D15
32MBIT WAVE ROM
A0~A19
IC17
A1~A4
SDOCHO
SDOREV
SDICHO
D0~D15
TONE GENERATOR
SD0MIX
D0~D15
A0~A19
IC22
D0~D15
32MBIT WAVE ROM
A0~A19
CN2
CN3
CN4
AS
IC1
+15V VOLTAGE REGULATOR
+15V
IC2
-15V VOLTAGE REGULATOR
-15V
RECTIFIER
D3~10
CN1
T1
POWER TRANSFORMER
+15V
-15V
CN1
EQUALIZING
IC5,6
IC7,8
POWER AMPLIFIER
IC10B,Q18~Q21
IC10A,Q14~Q17
IC9A
IC9B
HEADPHONE AMPLIFIER
CN4
+15V
ACP
JK1
AC CORD
CN2
CN1
S1 POWER SWITCH
SP5 6.5cm,8 Ω
SP6 6.5cm,8 Ω
SP3 13cm × 6cm 8 Ω
SP1 16cm,8 Ω
SP4 13cm × 6cm 8 Ω
SP2 16cm,8 Ω
CN9
CN10
HP
CN1
CN2
D1 POWER INDICATOR
JK1
HEAD PHONE 1
JK2
HEAD PHONE 2
JACK
CN2
JK8
LINE OUT L
JK7
LINE OUT R
JK5
AUX IN R
JK6
AUX IN L
JK1
Q2
JK3
MIDI OUT
JK2
MIDI THRU
IC1
PHOTO COUPLER
Q3
JK4
MIDI IN
CN1
PKB
CN1
SOFT
SOSU
SUS
10
11
12
13
14
15
16
17
18
19

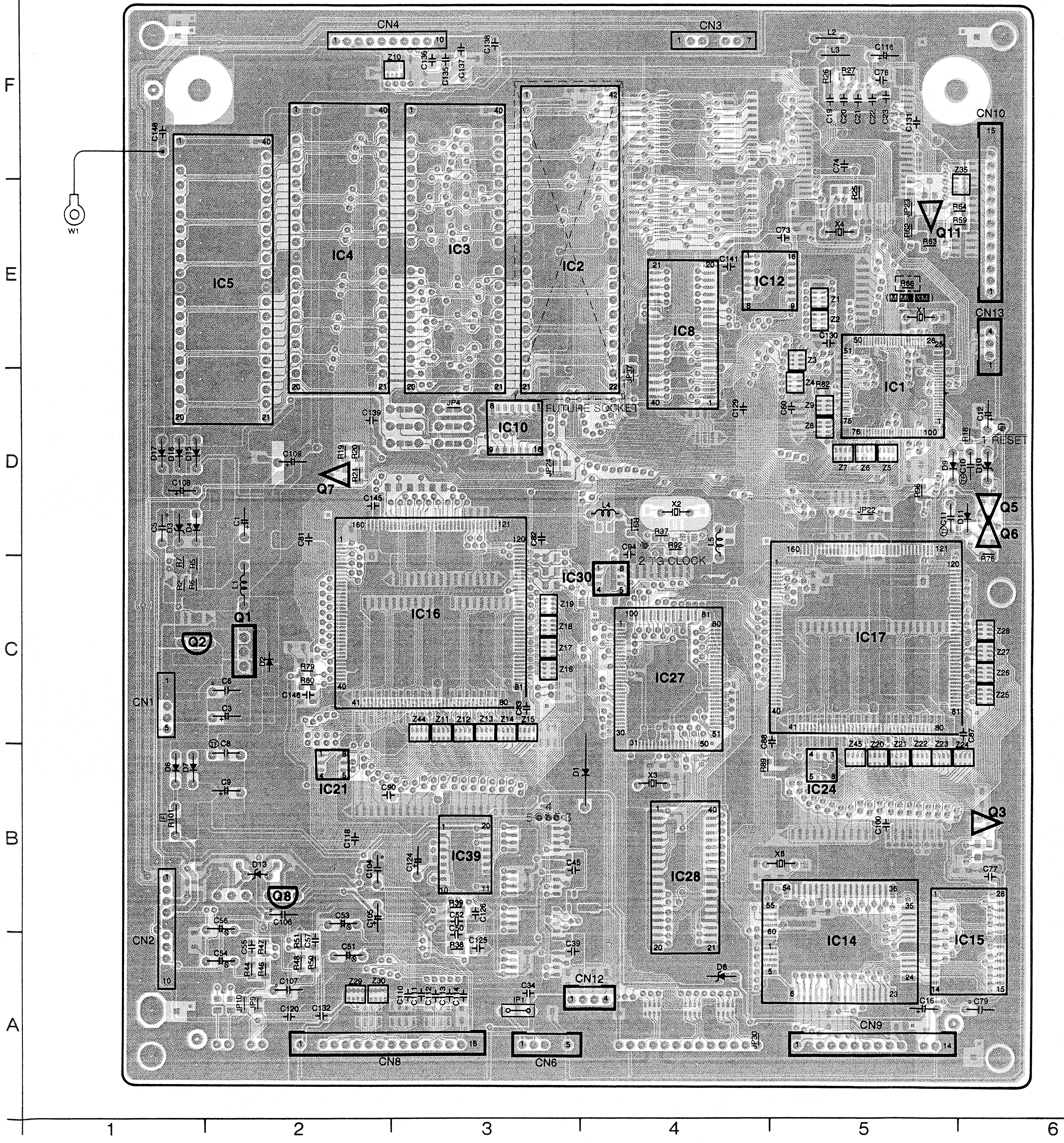
MAIN P.C. Diagram


MAIN
CN10
FDD
IP
DSO
MOT
DIR
STEP
WDT
WGA
TRKO
WPRT
RDT
SIDE
DCH
+5D
E
CN12
MKB1 CN1
CS
SK
DO
DI
CN13
CHECK TERMINAL
E
SW
LED
+5D
CN4
JACK CN1
5MI
SOFT
SOSU
SUST
MRXD
MTXD
MSNS
CN1
AS CN6
VCC
SNS
CN9
LCD
FLM
CL1
CL2
DOFF
D0
D1
D2
D3
VDD
VEE
VO
W1
Q5,7
2SB709AR
Q6
2SD601AQ
RESET CONTROL
Q12
2SD601AQ
IC35B
IC35
BA10393F
COMPARATOR
IC35A
Q1
2SA1643
Q2
2SC1815GR
+5D REGULATOR
D6,7
SVDGERA1502
Q3
2SB709AR
Q4
2SD601AQ
LCD CONTROL
IC1
TMP95C061AF
MICROCOMPUTER
X1 (25MHz)
RESET
IC37
TC74AC245F
BUFFER
IC38
TC74AC245F
BUFFER
IC12
D74HC138GS
DECODER
IC10
D74HC139GS
DECODER
IC11
D74HC21GS
DUAL 4 INPUT AND GATES
IC11A
IC11B
IC40
TC7W08F
DUAL 2 INPUT AND GATES
IC40A
IC40B
RAS
CAS
RHYMCS
Q11
2SD601AQ
FD MOTOR CONTROL
IC13
D72070GF3BE
FLOPPY DISK CONTROLLER
X4 (24MHz)
IC15
LH5P832N-10
256K BIT STATIC RAM
IC14
SED1330FBA
LCD CONTROLLER
X6 (10MHz)
This socket used by 16 Mbit Mask ROM in the future.
IC5
QSIGCR700AX
4M BIT PROGRAMMED ROM
IC4
QSIGCR700BX
4M BIT PROGRAMMED ROM
IC3
QSIGCR700CX
4M BIT PROGRAMMED ROM
※IC2
IC7
QSIGT3C16067
16M BIT PHY & ACC DATA ROM
IC8
M5M44170AJ7S
4M BIT DYNAMIC RAM
PROGCS4
PROGCS3
PROGCS2
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

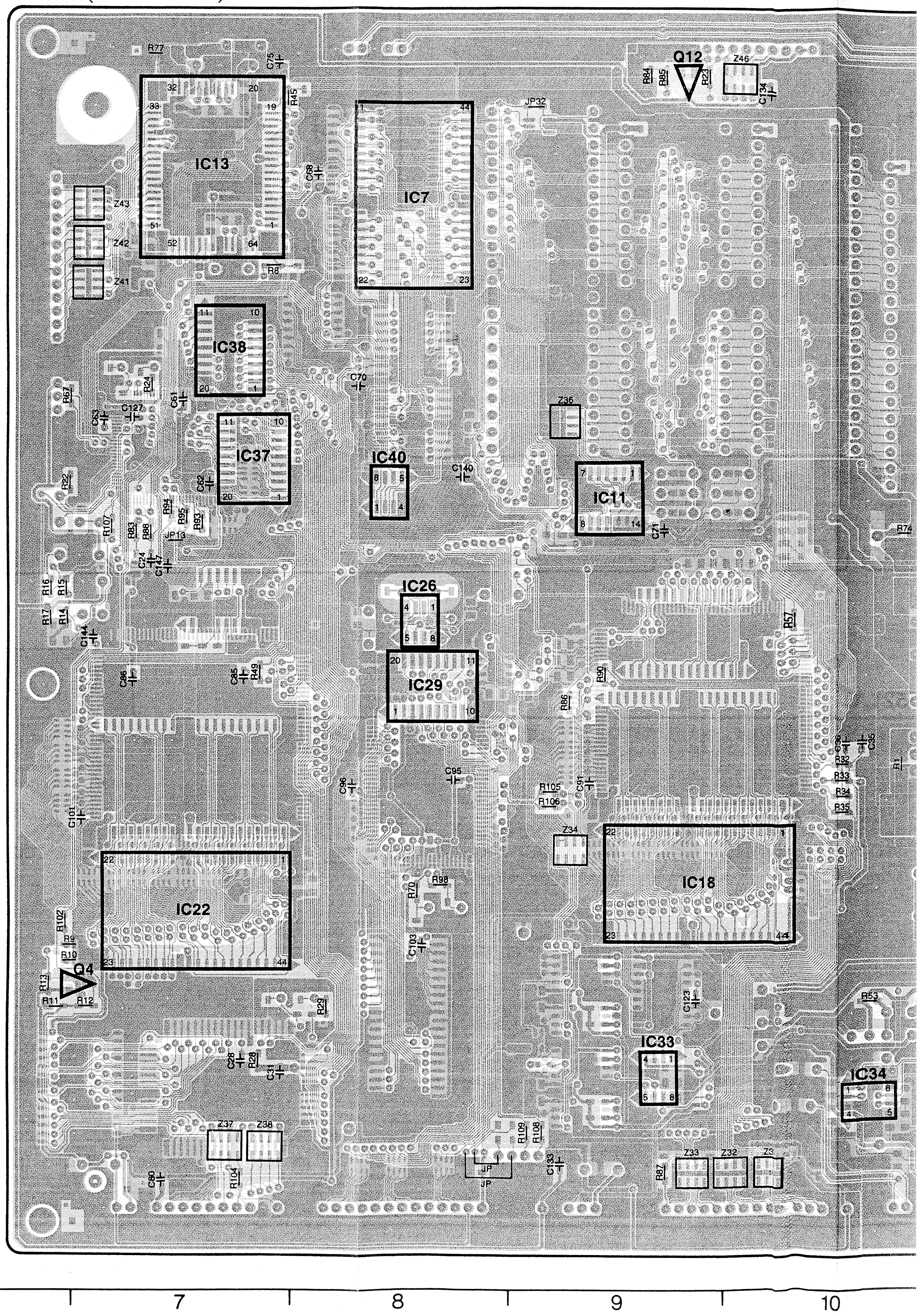

IC16
D96140GD001
TONE GENERATOR LSI
IC17
D96140GD001
TONE GENERATOR LSI
IC21B
IC21A
IC21
TC7W08F
DUAL 2 INPUT AND GATES
IC18
QSIGU3C32392
32M BIT WAVE ROM
Q8
2SC1815GR
+5A REGULATOR
IC39
PCM69AU
D-A CONVERTER
IC33B
IC33A
IC33
M5218AFP
IC26B
IC26C
IC26A
IC26
TC7W04F
INVERTER
② TG CLOCK
X2 (11.2896MHz)
IC30B
IC29
D74HC374GS
HEX BUFFER
IC30
TC7W32F
DUAL 2 INPUT OR GATES
IC30A
IC27
D6383GF-3BA
DIGITAL SIGNAL PROCESSOR
X3 (25MHz)
Lch MIXING
IC34B
Rch MIXING
IC34A
IC34
M5218AFP
JACK CN2
AS CN1
CPL CN1
CPR CN1
IC24B
IC24A
IC24
TC7W08F
DUAL 2 INPUT AND GATES
IC22
QSIGU3C32396
32M BIT WAVE ROM
MEMORY BACK-UP
D15,16,17 MA162A
D13 MA1062M
IC28
LC321664AJ80
1M BIT DYNAMIC RAM
MKB1 CN2
CN3
CN2
CN6
CN8
10
11
12
13
14
15
16
17
18
19

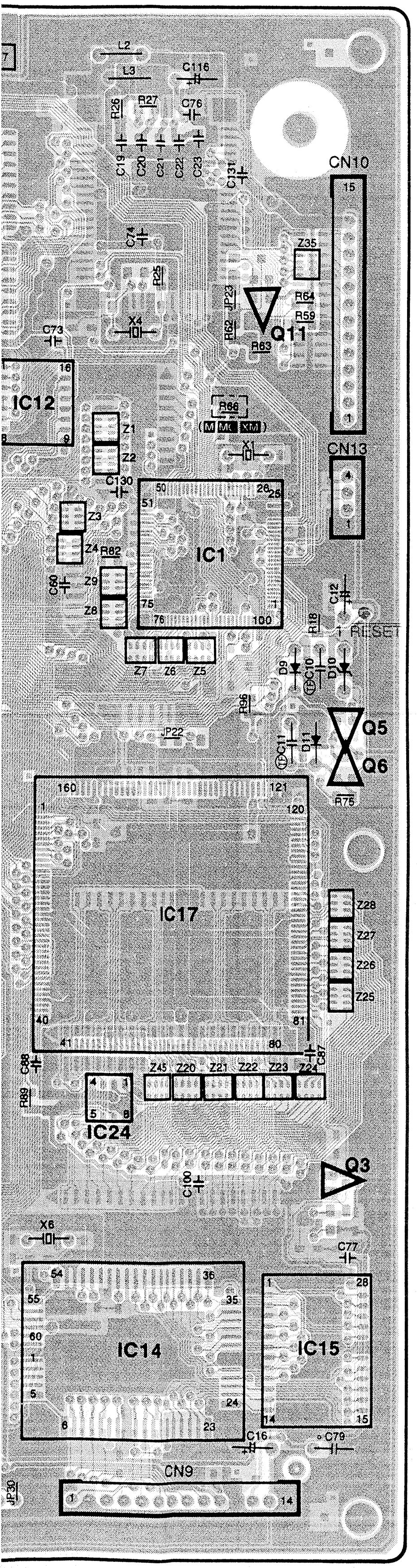
MAIN P.C. Board

M **MC** **XM** (SXPG226461)
MAIN Others(SXPG226421)(COMPONENT SIDE)

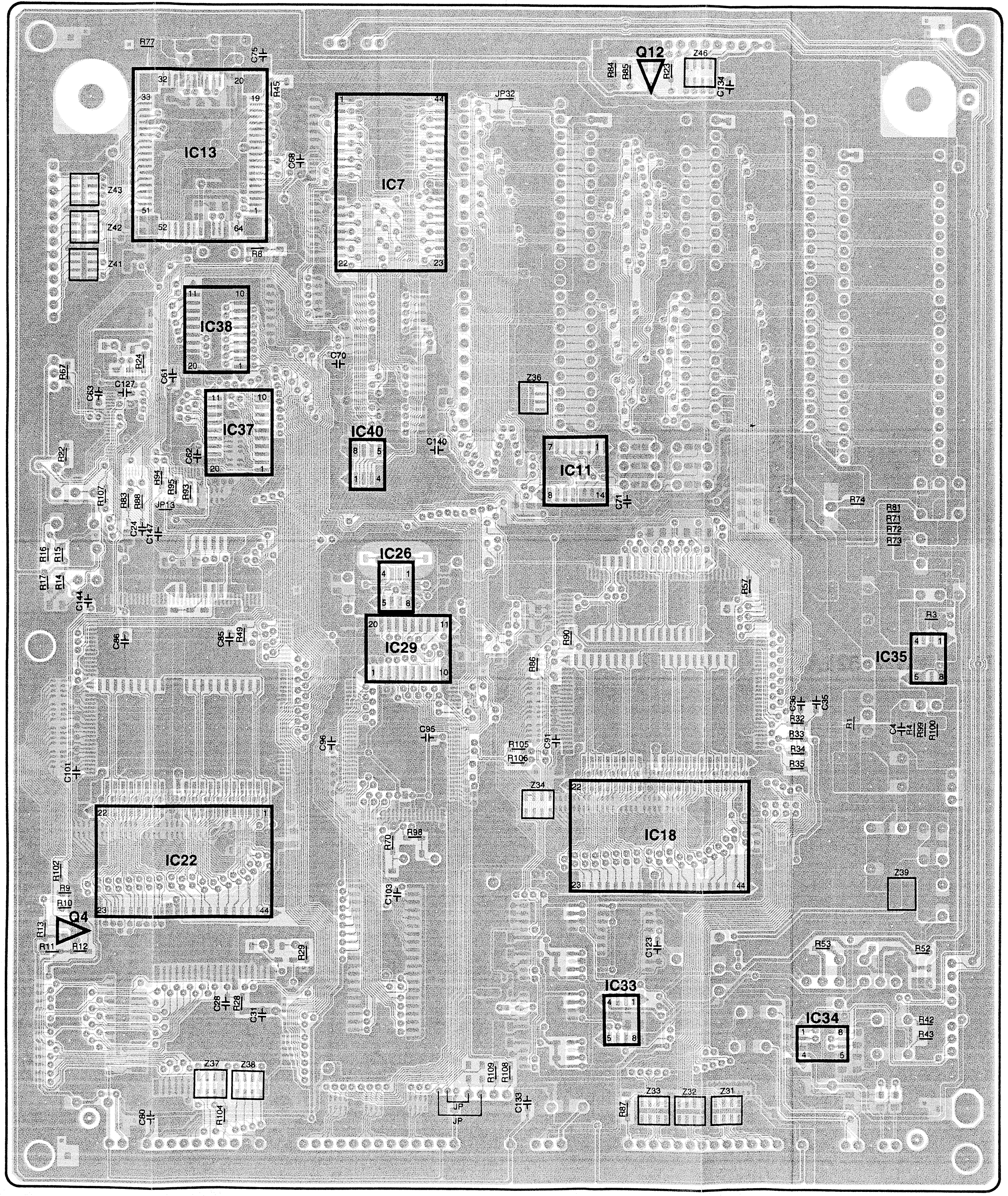

F
E
D
C
B
A
1
2
3
4
5
6
W1
CN1
CN2
CN3
CN4
CN6
CN8
CN9
CN10
CN12
CN13
IC1
IC2
IC3
IC4
IC5
IC8
IC10
IC12
IC14
IC15
IC16
IC17
IC21
IC24
IC27
IC28
IC30
IC39
Q1
Q2
Q3
Q5
Q6
Q7
Q8
Q11
X2
X3
X4
X6
FUTURE SOCKET
1 RESET
2 TG CLOCK

MAIN (FOIL SIDE)


7
8
9
10
IC7
IC11
IC13
IC18
IC22
IC26
IC29
IC33
IC34
IC37
IC38
IC40
Q4
Q12


CN10
CN13
CN9
IC12
IC1
IC17
IC24
IC14
IC15
Q11
Q5
Q6
Q3
RESET
X4
X6

MAIN (FOIL SIDE)

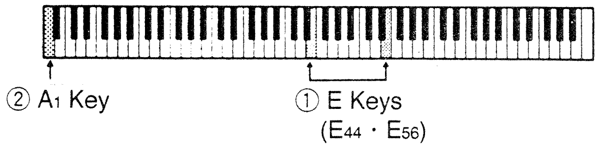

IC13
IC7
Q12
IC38
IC37
IC40
IC11
IC26
IC29
IC35
IC22
IC18
Q4
IC33
IC34
JP32
JP13
JP
Z43
Z42
Z41
Z36
Z34
Z39
Z37
Z38
Z33
Z32
Z31
Z46

Measuring Condition

Check Point ❸~❺

Set to the self-diagnostic mode followings.

- While pressing two E keys (①) simultaneously, turn on the power switch.
- SOUND .... SPECIAL PERC
- Main Volume .... MAX
- Keyboard .... A_1 (②)

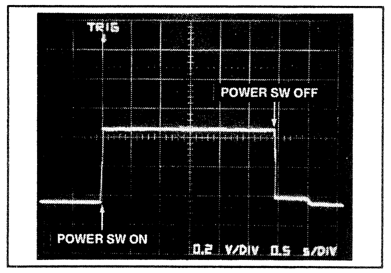

② A_1 Key
① E Keys
(E_{44} · E_{56})

Check Point ❶

Set the initial setting mode (Refer to page I-6)

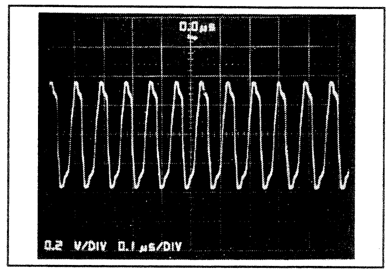
- SOUND .... SPECIAL PERC
- Main Volume .... MAX

❶ $\overline{\text{RESET}}$

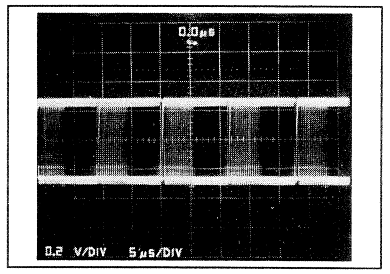


- Power SW .... ON → OFF

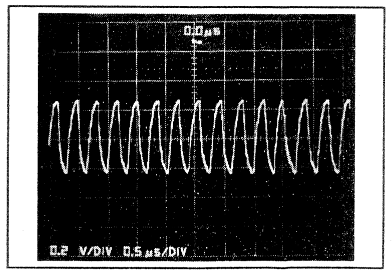
❷ TG CLOCK



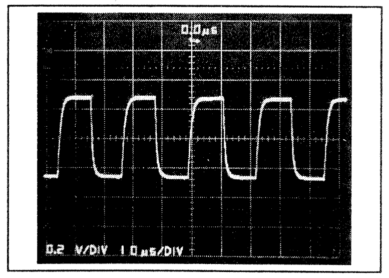
❸



❹



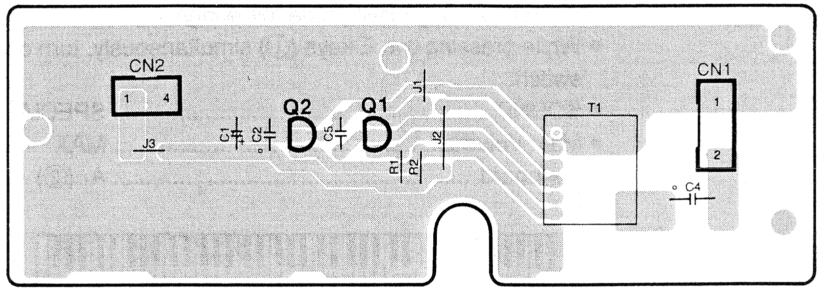
❺



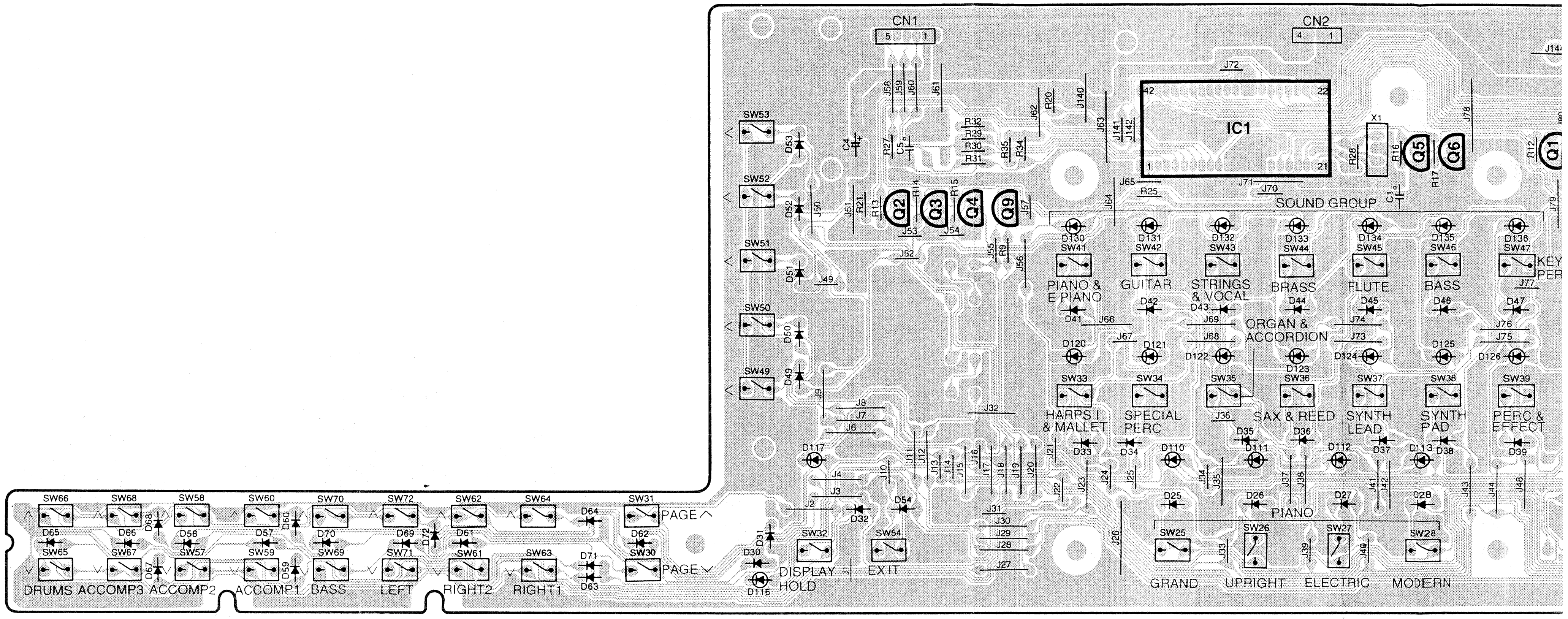
5 6 7 8 9 10 11 12 13 14

CPL/CPR/INV P.C. Board

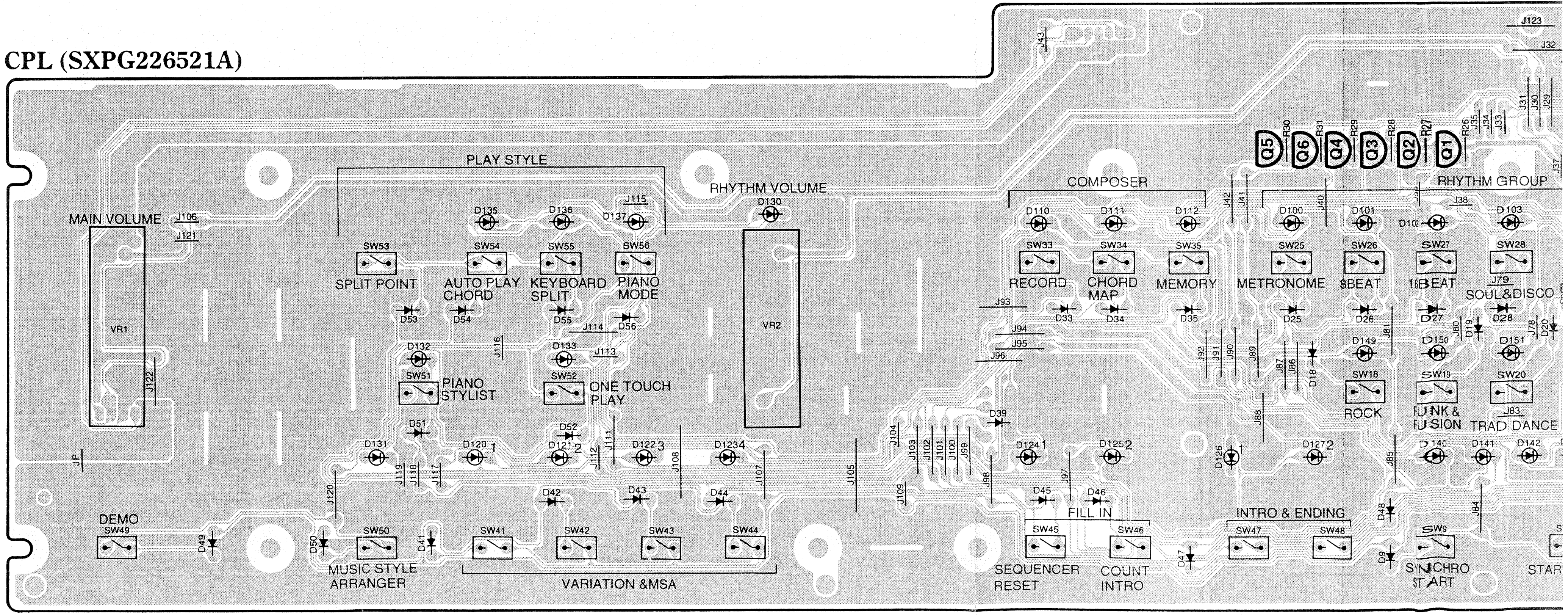
INV (SXPG226511C)


CN2
Q2
Q1
CN1
T1
J3
C1
C2
C3
C4
R1
R2
J1
J2

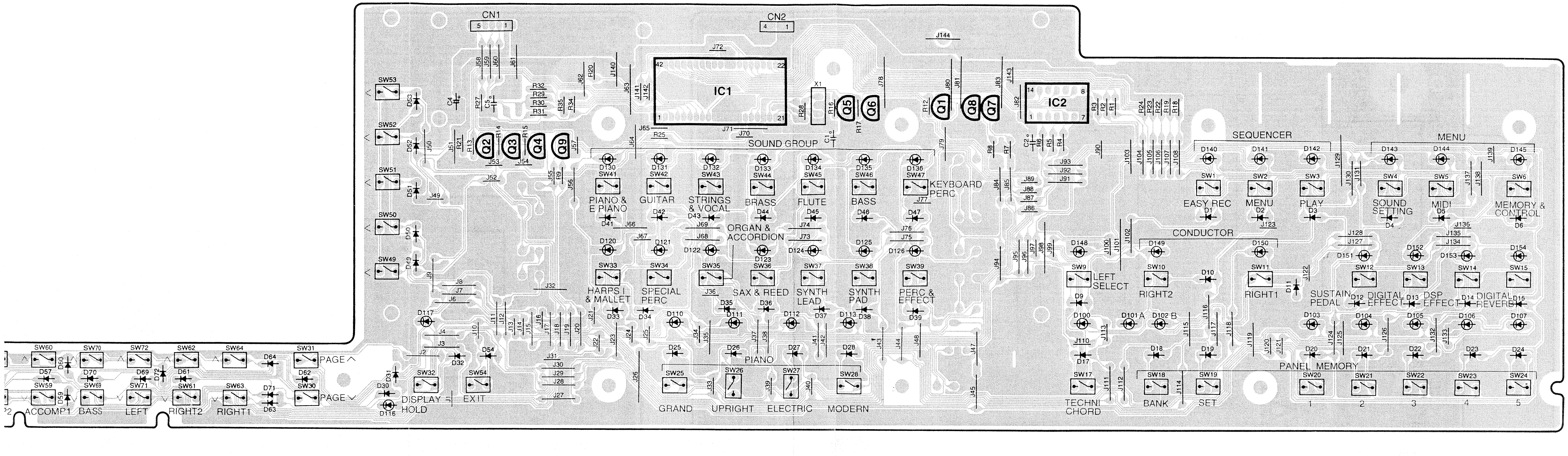
CPR (SXPG226521B)


CN1
CN2
IC1
X1
Q2
Q3
Q4
Q9
Q5
Q6
Q1
SOUND GROUP
PIANO & E PIANO
GUITAR
STRINGS & VOCAL
BRASS
FLUTE
BASS
KEY PER
ORGAN & ACCORDION
HARPS I & MALLET
SPECIAL PERC
SAX & REED
SYNTH LEAD
SYNTH PAD
PERC & EFFECT
PIANO
GRAND
UPRIGHT
ELECTRIC
MODERN
DISPLAY HOLD
EXIT
PAGE ^
PAGE v
DRUMS
ACCOMP3
ACCOMP2
ACCOMP1
BASS
LEFT
RIGHT2
RIGHT1

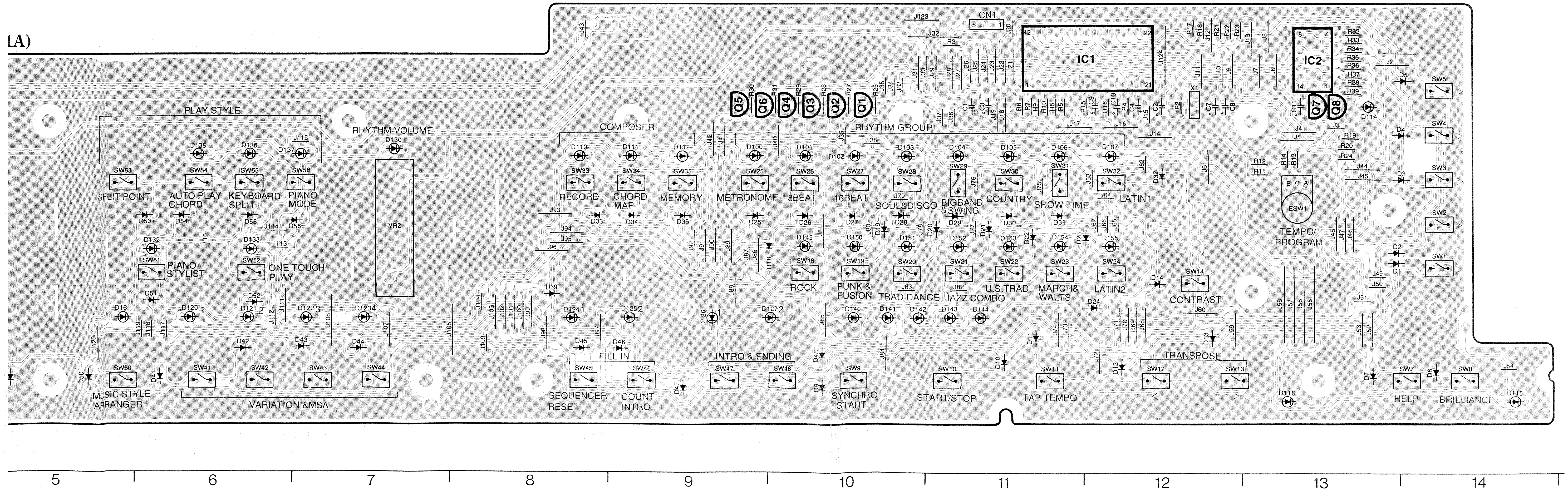
CPL (SXPG226521A)


MAIN VOLUME
VR1
PLAY STYLE
SPLIT POINT
AUTO PLAY CHORD
KEYBOARD SPLIT
PIANO MODE
PIANO STYLIST
ONE TOUCH PLAY
RHYTHM VOLUME
VR2
DEMO
MUSIC STYLE ARRANGER
VARIATION &MSA
COMPOSER
RECORD
CHORD MAP
MEMORY
METRONOME
8BEAT
16BEAT
SOUL&DISCO
ROCK
FUNK & FUSION
TRAD DANCE
RHYTHM GROUP
Q5
Q6
Q4
Q3
Q2
Q1
SEQUENCER RESET
COUNT INTRO
FILL IN
INTRO & ENDING
SYNCHRO START
STAR

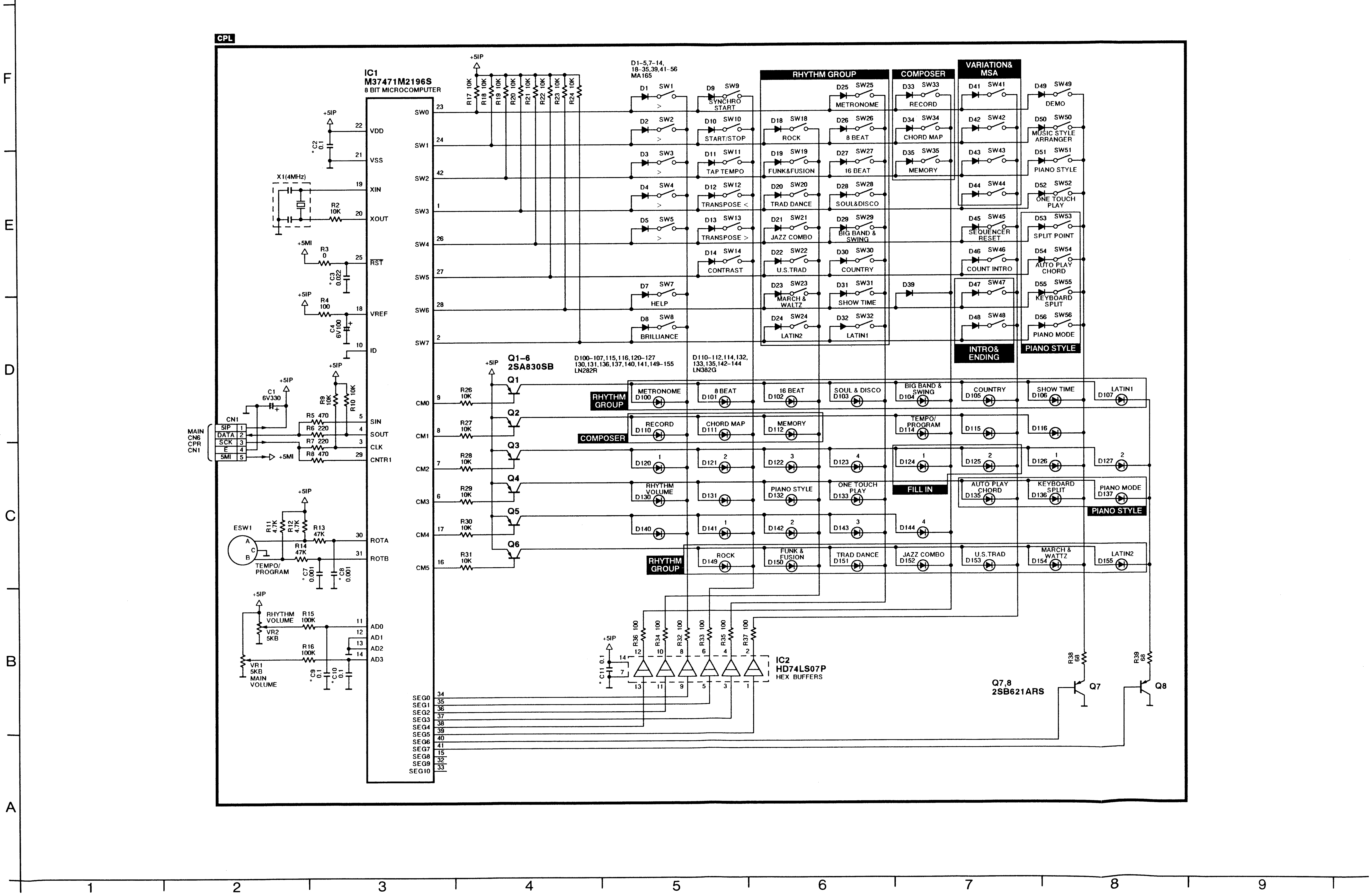
CPR (SXPG226521B)


CN1
CN2
IC1
IC2
X1
SOUND GROUP
PIANO & E PIANO
GUITAR
STRINGS & VOCAL
BRASS
FLUTE
BASS
KEYBOARD PERC
ORGAN & ACCORDION
HARPS I & MALLET
SPECIAL PERC
SAX & REED
SYNTH LEAD
SYNTH PAD
PERC & EFFECT
PIANO
GRAND
UPRIGHT
ELECTRIC
MODERN
SEQUENCER
EASY REC
MENU
PLAY
CONDUCTOR
LEFT SELECT
RIGHT2
RIGHT1
TECHNI CHORD
BANK
SET
MENU
SOUND SETTING
MIDI
MEMORY & CONTROL
SUSTAIN PEDAL
DIGITAL EFFECT
DSP EFFECT
DIGITAL REVERB
PANEL MEMORY
1
2
3
4
5
PAGE ^
PAGE v
DISPLAY HOLD
EXIT
ACCOMP1
BASS
LEFT
RIGHT2
RIGHT1

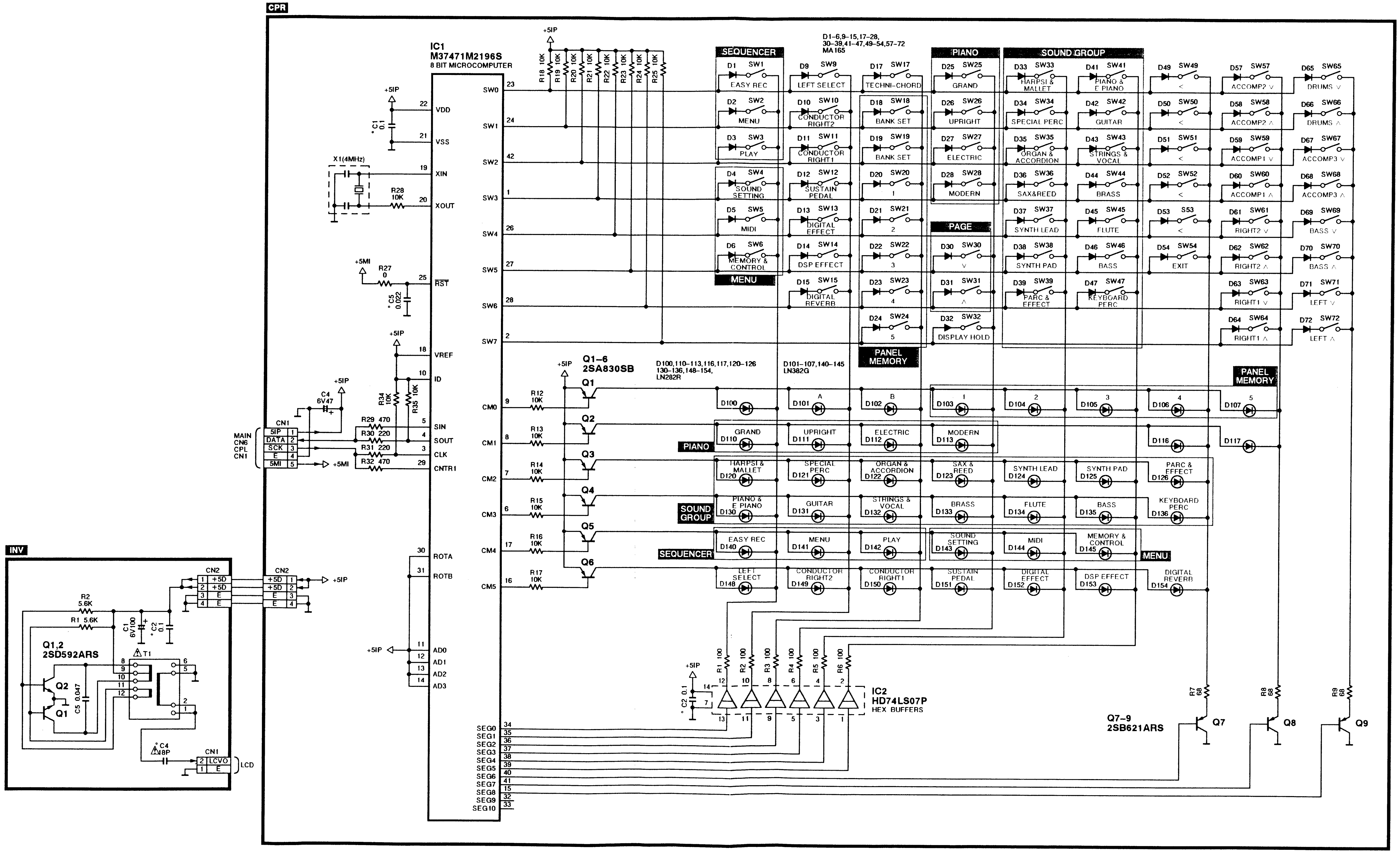
A)


CN1
IC1
IC2
X1
PLAY STYLE
SPLIT POINT
AUTO PLAY CHORD
KEYBOARD SPLIT
PIANO MODE
PIANO STYLIST
ONE TOUCH PLAY
1
2
3
4
RHYTHM VOLUME
VR2
MUSIC STYLE ARRANGER
VARIATION &MSA
COMPOSER
RECORD
CHORD MAP
MEMORY
SEQUENCER RESET
FILL IN
COUNT INTRO
RHYTHM GROUP
METRONOME
8BEAT
16BEAT
SOUL&DISCO
BIGBAND & SWING
COUNTRY
SHOW TIME
LATIN1
ROCK
FUNK & FUSION
TRAD DANCE
JAZZ COMBO
U.S.TRAD
MARCH& WALTS
LATIN2
INTRO & ENDING
SYNCHRO START
START/STOP
TAP TEMPO
CONTRAST
TRANSPOSE
<
>
ESW1
TEMPO/ PROGRAM
HELP
BRILLIANCE
5
6
7
8
9
10
11
12
13
14

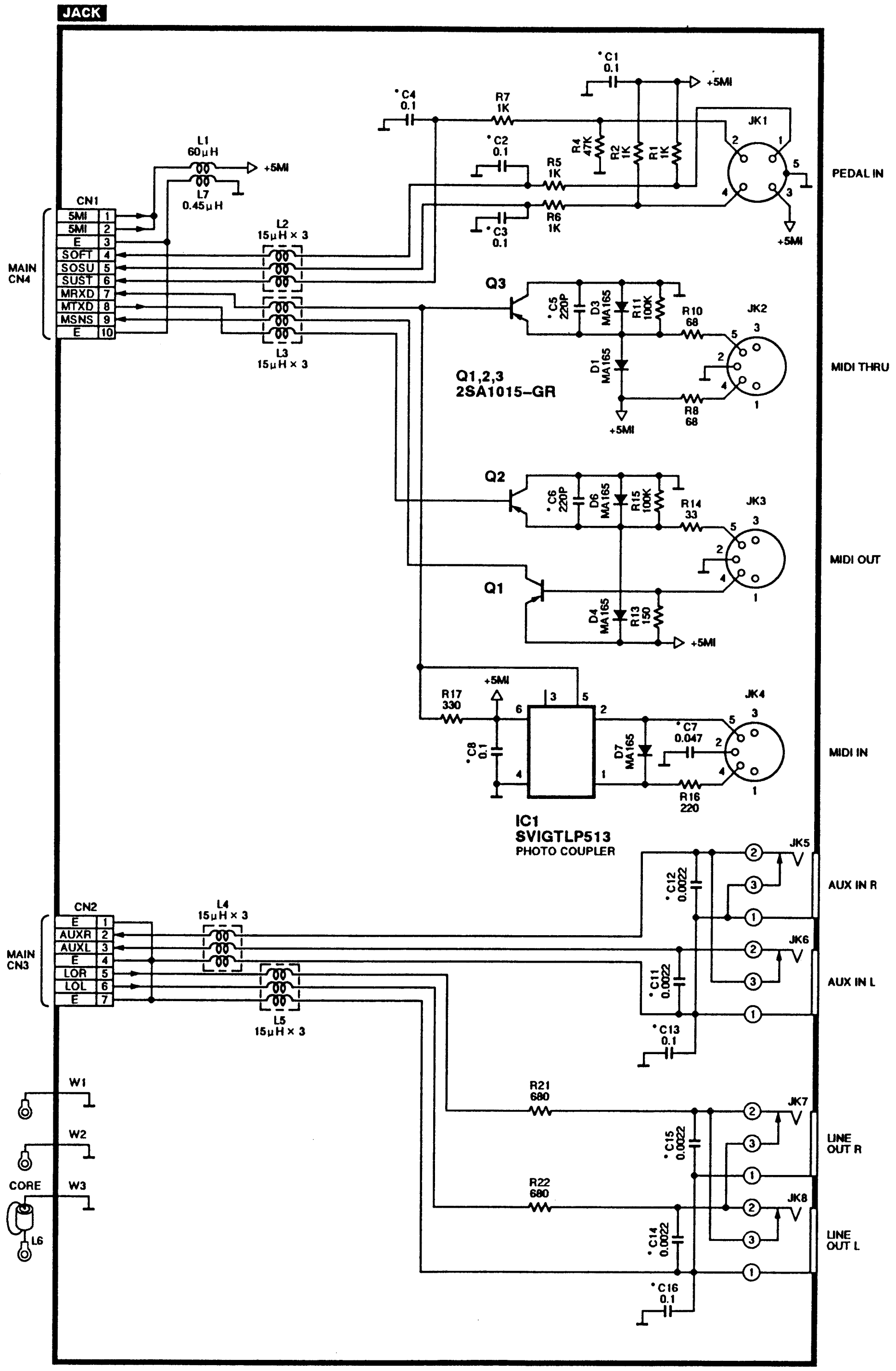
CPL P.C. Diagram

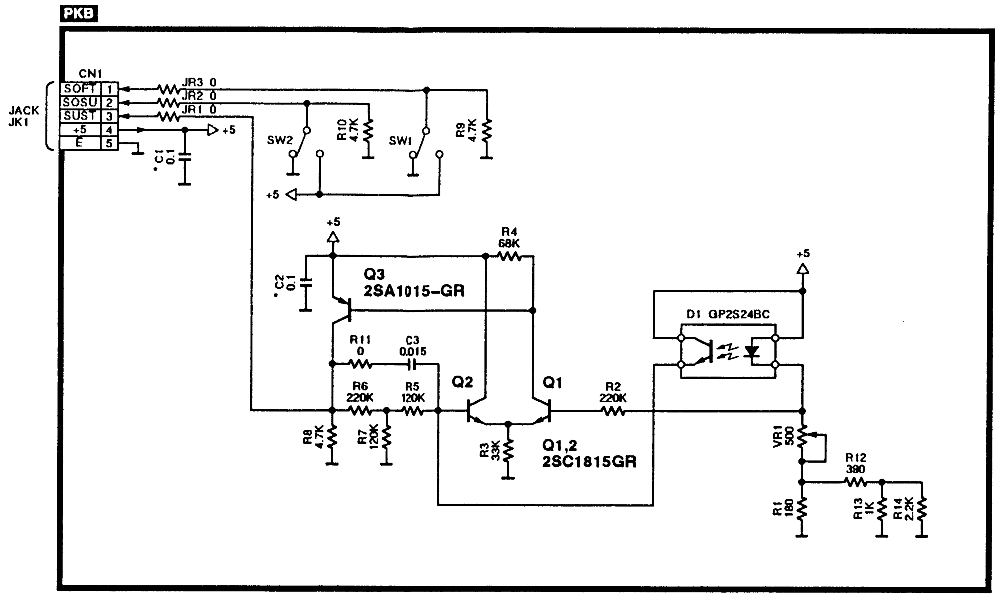

CPL
IC1
M37471M2196S
8 BIT MICROCOMPUTER
VDD
VSS
XIN
XOUT
RST
VREF
ID
SIN
SOUT
CLK
CNTR1
ROTA
ROTB
AD0
AD1
AD2
AD3
SW0
SW1
SW2
SW3
SW4
SW5
SW6
SW7
CM0
CM1
CM2
CM3
CM4
CM5
SEG0
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
+5IP
+5MI
C2 0.1
X1(4MHz)
R2 10K
R3 0
C3 0.022
R4 100
C4 6V100
C1 6V330
R9 10K
R10 10K
R5 470
R6 220
R7 220
R8 470
MAIN CN6
CPR CN1
CN1
5IP
DATA
SCK
E
5MI
ESW1
TEMPO/PROGRAM
R11 4.7K
R12 4.7K
R13 47K
R14 47K
C7 0.001
C8 0.001
RHYTHM VOLUME
VR2 5KB
R15 100K
R16 100K
VR1 5KB
MAIN VOLUME
C9 0.1
C10 0.1
R17 10K
R18 10K
R19 10K
R20 10K
R21 10K
R22 10K
R23 10K
R24 10K
Q1-6
2SA830SB
Q1
Q2
Q3
Q4
Q5
Q6
R26 10K
R27 10K
R28 10K
R29 10K
R30 10K
R31 10K
D1-5,7-14,
18-35,39,41-56
MA165
D100-107,115,116,120-127
130,131,136,137,140,141,149-155
LN282R
D110-112,114,132,
133,135,142-144
LN382G
RHYTHM GROUP
COMPOSER
VARIATION& MSA
INTRO& ENDING
PIANO STYLE
FILL IN
D1 SW1 >
D2 SW2 >
D3 SW3 >
D4 SW4 >
D5 SW5 >
D7 SW7 HELP
D8 SW8 BRILLIANCE
D9 SW9 SYNCHRO START
D10 SW10 START/STOP
D11 SW11 TAP TEMPO
D12 SW12 TRANSPOSE <
D13 SW13 TRANSPOSE >
D14 SW14 CONTRAST
D18 SW18 ROCK
D19 SW19 FUNK&FUSION
D20 SW20 TRAD DANCE
D21 SW21 JAZZ COMBO
D22 SW22 U.S.TRAD
D23 SW23 MARCH & WALTZ
D24 SW24 LATIN2
D25 SW25 METRONOME
D26 SW26 8 BEAT
D27 SW27 16 BEAT
D28 SW28 SOUL&DISCO
D29 SW29 BIG BAND & SWING
D30 SW30 COUNTRY
D31 SW31 SHOW TIME
D32 SW32 LATIN1
D33 SW33 RECORD
D34 SW34 CHORD MAP
D35 SW35 MEMORY
D39
D41 SW41
D42 SW42
D43 SW43
D44 SW44
D45 SW45 SEQUENCER RESET
D46 SW46 COUNT INTRO
D47 SW47
D48 SW48
D49 SW49 DEMO
D50 SW50 MUSIC STYLE ARRANGER
D51 SW51 PIANO STYLE
D52 SW52 ONE TOUCH PLAY
D53 SW53 SPLIT POINT
D54 SW54 AUTO PLAY CHORD
D55 SW55 KEYBOARD SPLIT
D56 SW56 PIANO MODE
METRONOME D100
8 BEAT D101
16 BEAT D102
SOUL & DISCO D103
BIG BAND & SWING D104
COUNTRY D105
SHOW TIME D106
LATIN1 D107
RECORD D110
CHORD MAP D111
MEMORY D112
TEMPO/PROGRAM D114
D115
D116
1 D120
2 D121
3 D122
4 D123
1 D124
2 D125
1 D126
2 D127
RHYTHM VOLUME D130
D131
PIANO STYLE D132
ONE TOUCH PLAY D133
AUTO PLAY CHORD D135
KEYBOARD SPLIT D136
PIANO MODE D137
D140
1 D141
2 D142
3 D143
4 D144
ROCK D149
FUNK & FUSION D150
TRAD DANCE D151
JAZZ COMBO D152
U.S.TRAD D153
MARCH & WALTZ D154
LATIN2 D155
R36 100
R34 100
R32 100
R33 100
R35 100
R37 100
C11 0.1
IC2
HD74LS07P
HEX BUFFERS
R38 68
R39 68
Q7,8
2SB621ARS
Q7
Q8
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

CPR/INV P.C. Diagram

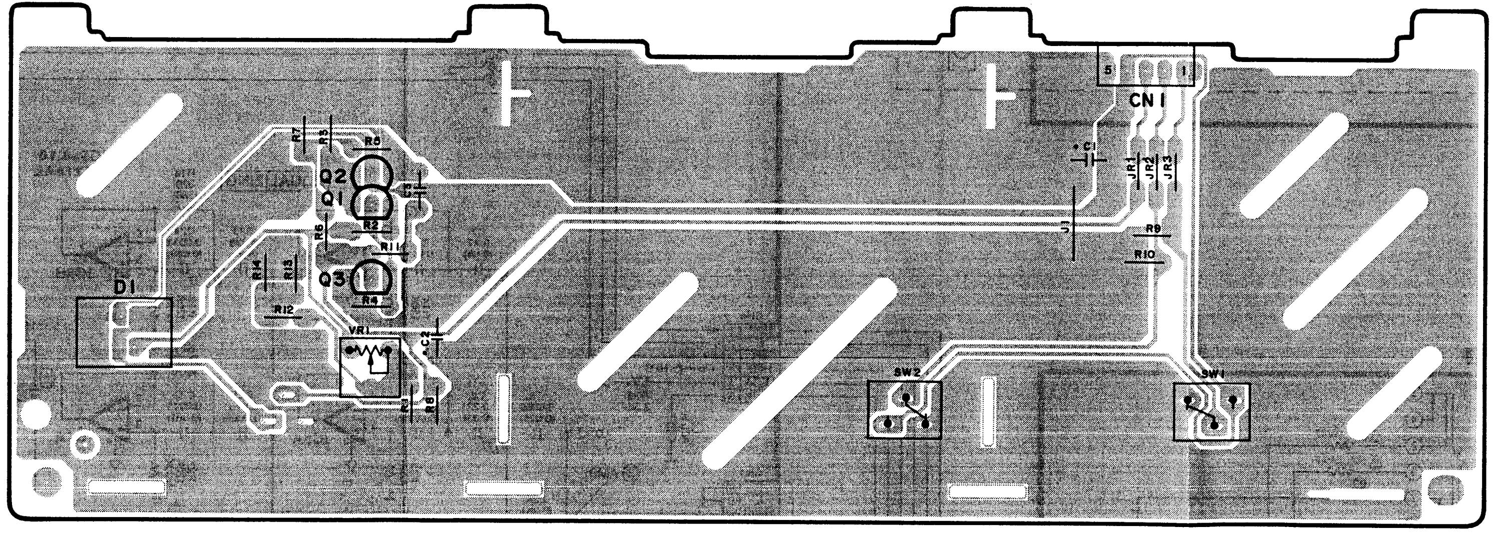

CPR
IC1
M37471M2196S
8 BIT MICROCOMPUTER
VDD
VSS
XIN
XOUT
RST
VREF
ID
SIN
SOUT
CLK
CNTR1
ROTA
ROTB
AD0
AD1
AD2
AD3
SW0
SW1
SW2
SW3
SW4
SW5
SW6
SW7
CM0
CM1
CM2
CM3
CM4
CM5
SEG0
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
X1(4MHz)
R28 10K
R27 0
C5 0.022
C1 0.1
C4 6V47
R29 470
R30 220
R31 220
R32 470
R34 10K
R35 10K
R18–R25 10K
MAIN CN6 CPL CN1
CN1
5IP
DATA
SCK
E
5MI
+5IP
+5MI
Q1–6
2SA830SB
Q1
Q2
Q3
Q4
Q5
Q6
R12 10K
R13 10K
R14 10K
R15 10K
R16 10K
R17 10K
D1–6,9–15,17–28, 30–39,41–47,49–54,57–72 MA165
D100,110–113,116,117,120–126 130–136,148–154, LN282R
D101–107,140–145 LN382G
SEQUENCER
EASY REC
MENU
PLAY
SOUND SETTING
MIDI
MEMORY & CONTROL
LEFT SELECT
CONDUCTOR RIGHT2
CONDUCTOR RIGHT1
SUSTAIN PEDAL
DIGITAL EFFECT
DSP EFFECT
DIGITAL REVERB
TECHNI-CHORD
BANK SET
PANEL MEMORY
PIANO
GRAND
UPRIGHT
ELECTRIC
MODERN
PAGE
DISPLAY HOLD
SOUND GROUP
HARPSI & MALLET
SPECIAL PERC
ORGAN & ACCORDION
SAX&REED
SYNTH LEAD
SYNTH PAD
PARC & EFFECT
PIANO & E PIANO
GUITAR
STRINGS & VOCAL
BRASS
FLUTE
BASS
KEYBOARD PERC
EXIT
ACCOMP2 ∨
ACCOMP2 ∧
ACCOMP1 ∨
ACCOMP1 ∧
RIGHT2 ∨
RIGHT2 ∧
RIGHT1 ∨
RIGHT1 ∧
DRUMS ∨
DRUMS ∧
ACCOMP3 ∨
ACCOMP3 ∧
BASS ∨
BASS ∧
LEFT ∨
LEFT ∧
R1–R6 100
IC2
HD74LS07P
HEX BUFFERS
C2 0.1
R7 68
R8 68
R9 68
Q7–9
2SB621ARS
Q7
Q8
Q9
INV
CN2
+5D
E
R2 5.6K
R1 5.6K
C1 6V100
C2 0.1
Q1,2
2SD592ARS
C5 0.047
T1
C4 18P
CN1
LCVO
LCD
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

JACK/PKB

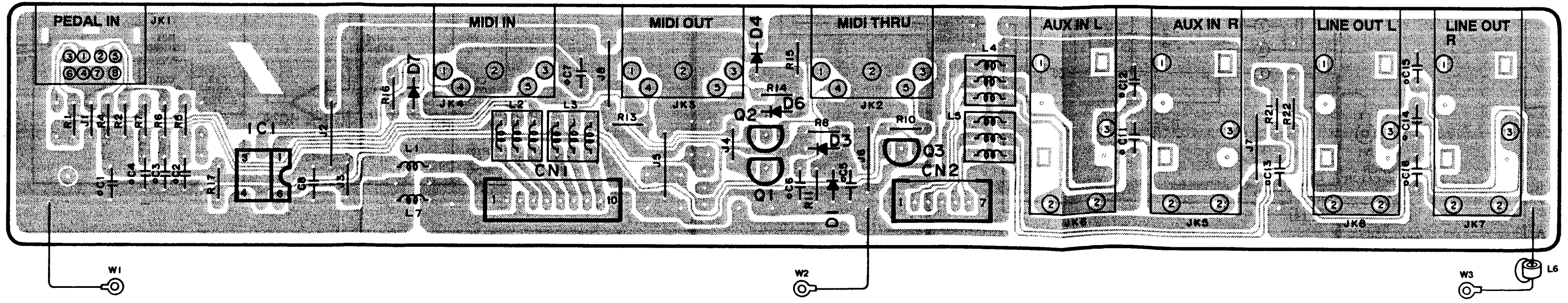

JACK
MAIN CN4
CN1
5MI 1
5MI 2
E 3
SOFT 4
SOSU 5
SUST 6
MRXD 7
MTXD 8
MSNS 9
E 10
L1 60μH
L7 0.45μH
+5MI
L2 15μH × 3
L3 15μH × 3
C4 0.1
R7 1K
C1 0.1
C2 0.1
C3 0.1
R5 1K
R6 1K
R4 47K
R2 1K
R1 1K
JK1
PEDAL IN
Q3
C5 220P
D3 MA165
R11 100K
R10 68
JK2
MIDI THRU
D1 MA165
R8 68
Q1,2,3 2SA1015-GR
Q2
C6 220P
D6 MA165
R15 100K
R14 33
JK3
MIDI OUT
Q1
D4 MA165
R13 180
R17 330
C8 0.1
C7 0.047
D7 MA165
R16 220
JK4
MIDI IN
IC1 SVIGTLP513 PHOTO COUPLER
MAIN CN3
CN2
E 1
AUXR 2
AUXL 3
E 4
LOR 5
LOL 6
E 7
L4 15μH × 3
L5 15μH × 3
C12 0.0022
C11 0.0022
C13 0.1
JK5
AUX IN R
JK6
AUX IN L
R21 680
R22 680
C15 0.0022
C14 0.0022
C16 0.1
JK7
LINE OUT R
JK8
LINE OUT L
W1
W2
W3
CORE
L6


PKB
JACK JK1
CN1
SOFT 1
SOSU 2
SUST 3
+5 4
E 5
JR3 0
JR2 0
JR1 0
C1 0.1
SW2
R10 4.7K
SW1
R9 4.7K
+5
C2 0.1
Q3 2SA1015-GR
R4 68K
R11 0
C3 0.015
R6 220K
R5 120K
Q2
Q1
R2 220K
R8 4.7K
R7 120K
R3 33K
Q1,2 2SC1815GR
D1 GP2S24BC
VR1 500
R12 390
R1 180
R13 1K
R14 2.2K

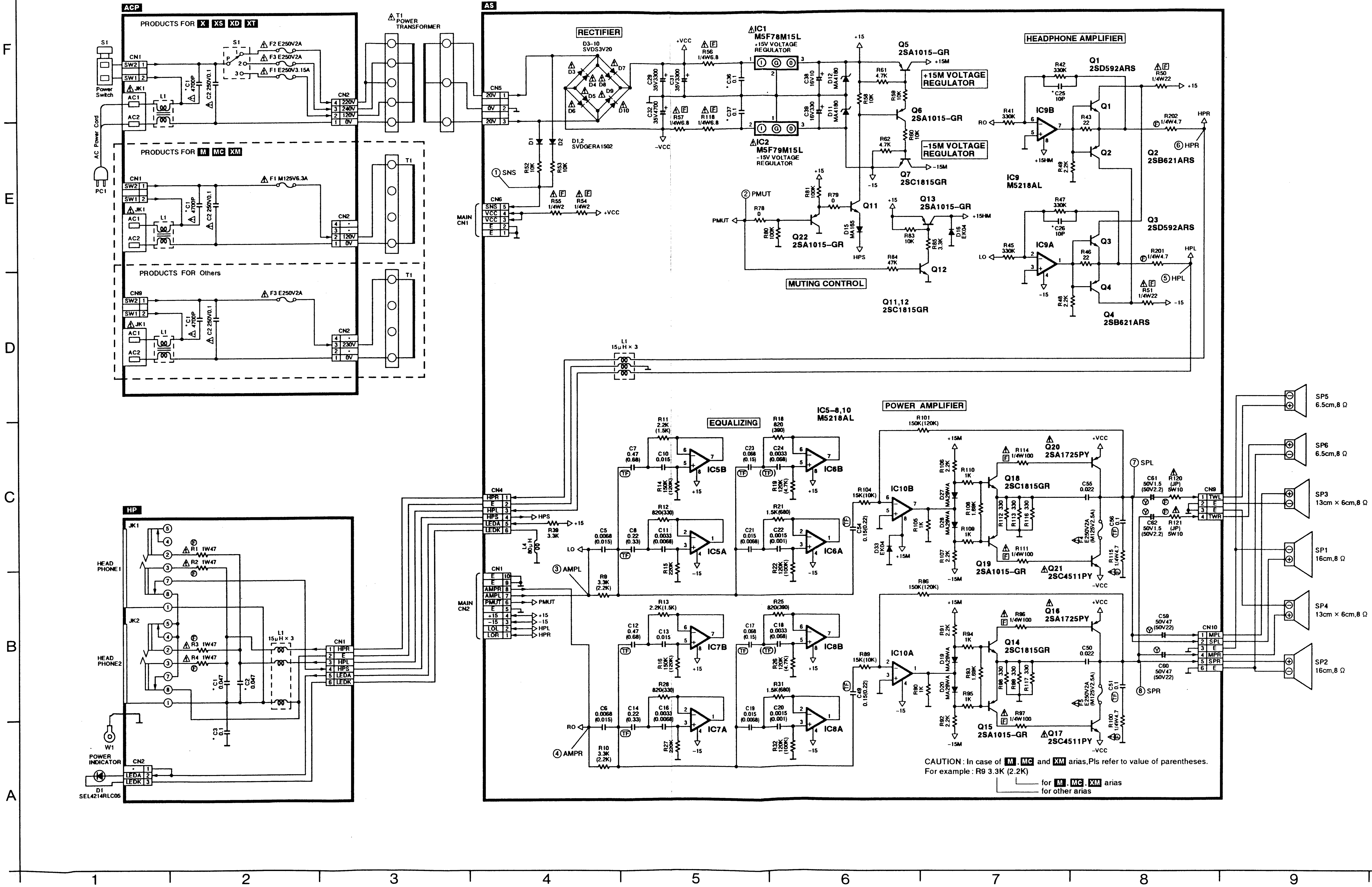
PKB (SXPG218211)


CN1
JR1
JR2
JR3
C1
R9
R10
Q2
Q1
Q3
R2
R4
R11
D1
VR1
R12
SW2
SW1

JACK (SXPG219641)


PEDAL IN
JK1
MIDI IN
MIDI OUT
MIDI THRU
AUX IN L
AUX IN R
LINE OUT L
LINE OUT R
IC1
D7
JK4
L2
L3
CN1
JK3
D4
Q2
D6
D3
Q3
CN2
Q1
JK2
L4
L5
L1
L7
JK6
JK5
JK8
JK7
W1
W2
W3
L6

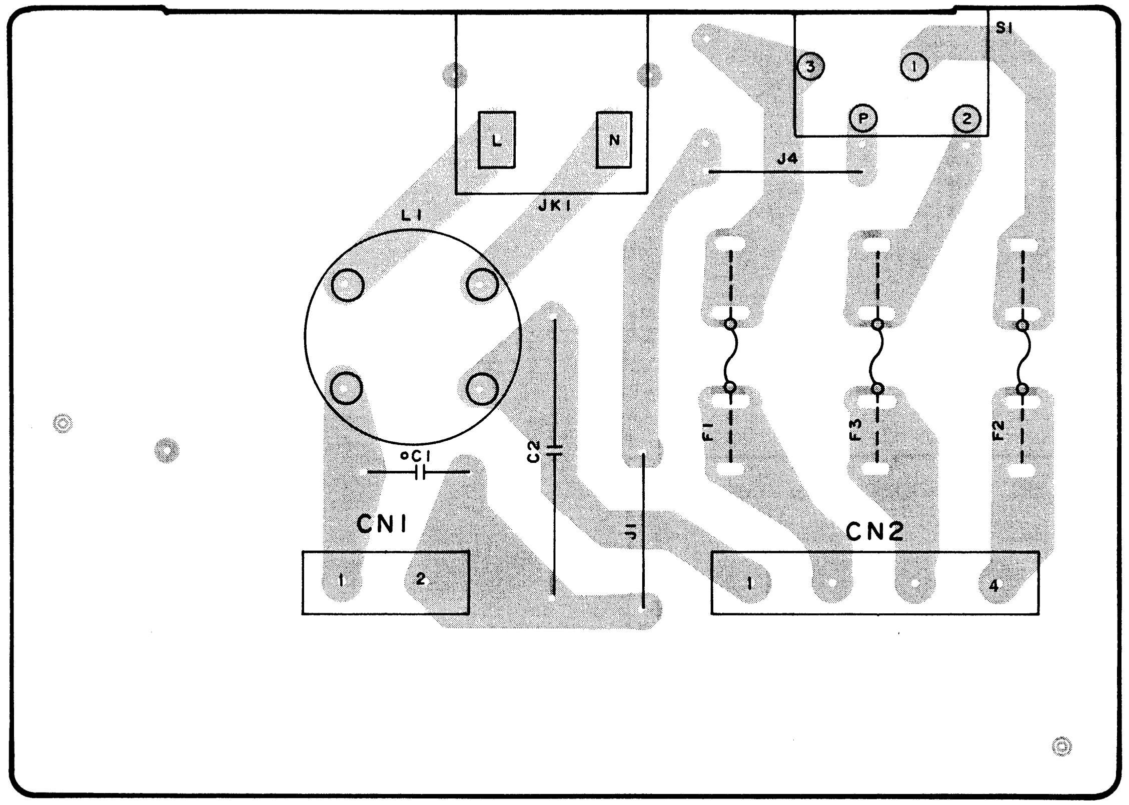
AS/ACP/HP P.C. Diagram


ACP
PRODUCTS FOR X XS XD XT
S1
Power Switch
AC Power Cord
PC1
CN1
SW2
SW1
JK1
AC1
AC2
L1
C1 4700P
C2 250V0.1
F2 E250V2A
F3 E250V2A
F1 E250V3.15A
CN2
220V
240V
120V
0V
T1 POWER TRANSFORMER
PRODUCTS FOR M MC XM
F1 M125V6.3A
PRODUCTS FOR Others
CN9
230V
AS
RECTIFIER
D3-10 SVDS3V20
D1,2 SVDGERA1502
CN5
20V
CN6
SNS
VCC
MAIN CN1
IC1 M5F78M15L +15V VOLTAGE REGULATOR
IC2 M5F79M15L -15V VOLTAGE REGULATOR
+15M VOLTAGE REGULATOR
-15M VOLTAGE REGULATOR
Q5 2SA1015-GR
Q6 2SA1015-GR
Q7 2SC1815GR
PMUT
Q22 2SA1015-GR
Q11
Q13 2SA1015-GR
Q12
MUTING CONTROL
Q11,12 2SC1815GR
HEADPHONE AMPLIFIER
Q1 2SD592ARS
Q2 2SB621ARS
Q3 2SD592ARS
Q4 2SB621ARS
IC9 M5218AL
IC9A
IC9B
HPR
HPL
L1 15μH × 3
EQUALIZING
IC5-8,10 M5218AL
IC5A
IC5B
IC6A
IC6B
IC7A
IC7B
IC8A
IC8B
AMPL
AMPR
CN4
MAIN CN2
POWER AMPLIFIER
IC10A
IC10B
Q14 2SC1815GR
Q15 2SA1015-GR
Q16 2SA1725PY
Q17 2SC4511PY
Q18 2SC1815GR
Q19 2SA1015-GR
Q20 2SA1725PY
Q21 2SC4511PY
SPL
SPR
CN9
CN10
SP5 6.5cm,8 Ω
SP6 6.5cm,8 Ω
SP3 13cm × 6cm,8 Ω
SP1 16cm,8 Ω
SP4 13cm × 6cm,8 Ω
SP2 16cm,8 Ω
HP
JK1
JK2
HEAD PHONE1
HEAD PHONE2
W1
POWER INDICATOR
D1 SEL4214RLC05
CN2
LEDA
LEDK
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

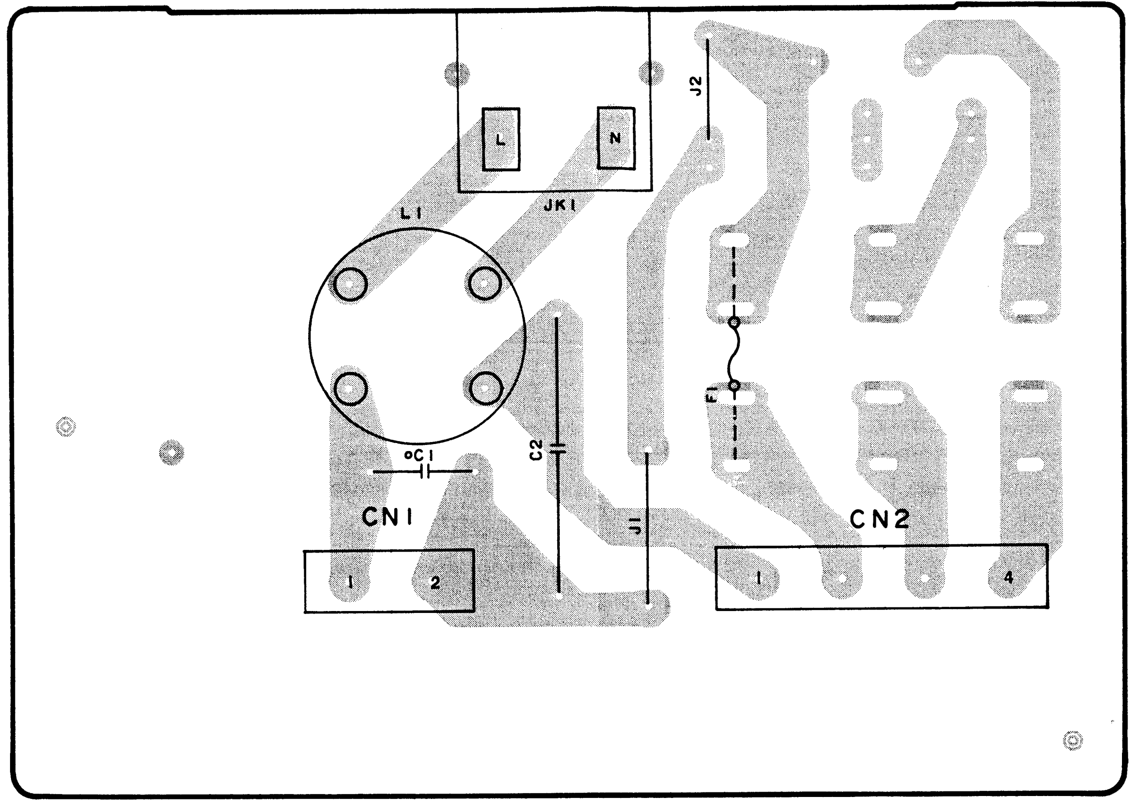
CAUTION : In case of M , MC and XM arias,Pls refer to value of parentheses.
For example : R9 3.3K (2.2K)
for M , MC , XM arias
for other arias

AS/ACP/HP P.C. Board

ACP **X** **XS** **XD** **XT** (SXPG216091)

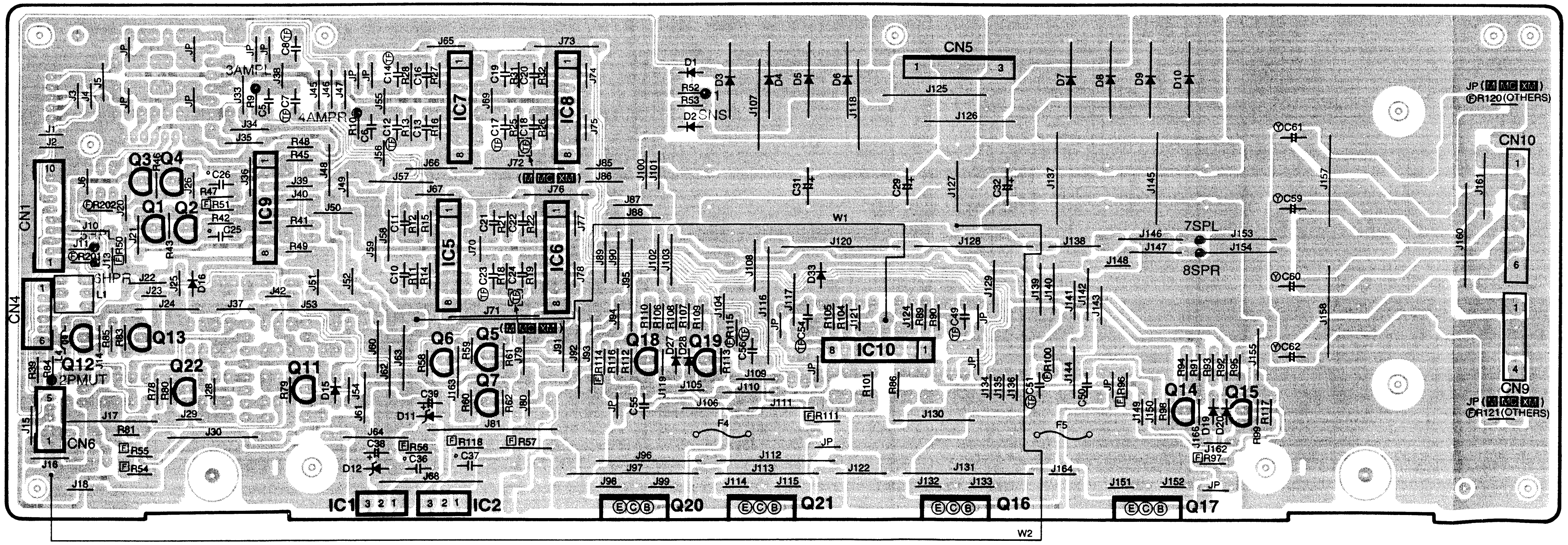

S1
③
①
Ⓟ
②
L
N
J4
JK1
L1
C1
C2
F1
F3
F2
J1
CN1
CN2
1
2
1
4

ACP **M** **MC** **XM** (SXPG216081)

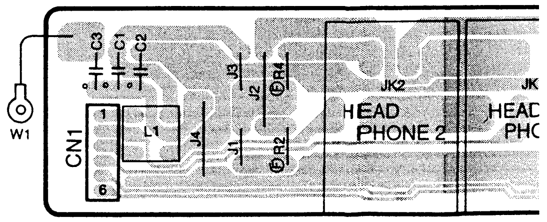

J2
L
N
JK1
L1
C1
C2
F1
J1
CN1
CN2
1
2
1
4

Others (SXPG2170191)

AS **M** **MC** **XM** (SXPG2170201)


CN1
CN4
CN5
CN6
CN9
CN10
IC1
IC2
IC5
IC6
IC7
IC8
IC9
IC10
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q11
Q12
Q13
Q14
Q15
Q16
Q17
Q18
Q19
Q20
Q21
Q22
3AMP
4AMPR
SNS
2PMUT
SHPR
7SPL
8SPR
W1
W2
F4
F5
JP (M MC XM)
R120 (OTHERS)
JP (M MC XM)
R121 (OTHERS)

HP (SXPG226521E)

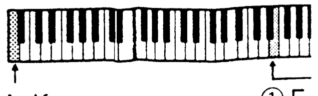

W1
CN1
C3
C1
C2
L1
J4
J3
J1
J2
R4
R2
JK2
HEAD PHONE 2
JK
HEAD
PHO

■ Measuring Condition

Check Point ❸~❽

Set to the self-diagnostic mode f

- While pressing two E keys (①
  switch.
- SOUND ....
- Main Volume ....
- Keyboard ....



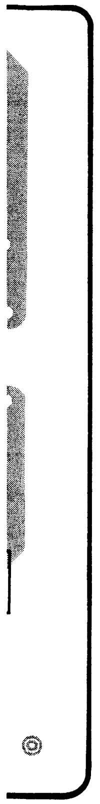
② A_1 Key ① E

Check Point ❶, ❷

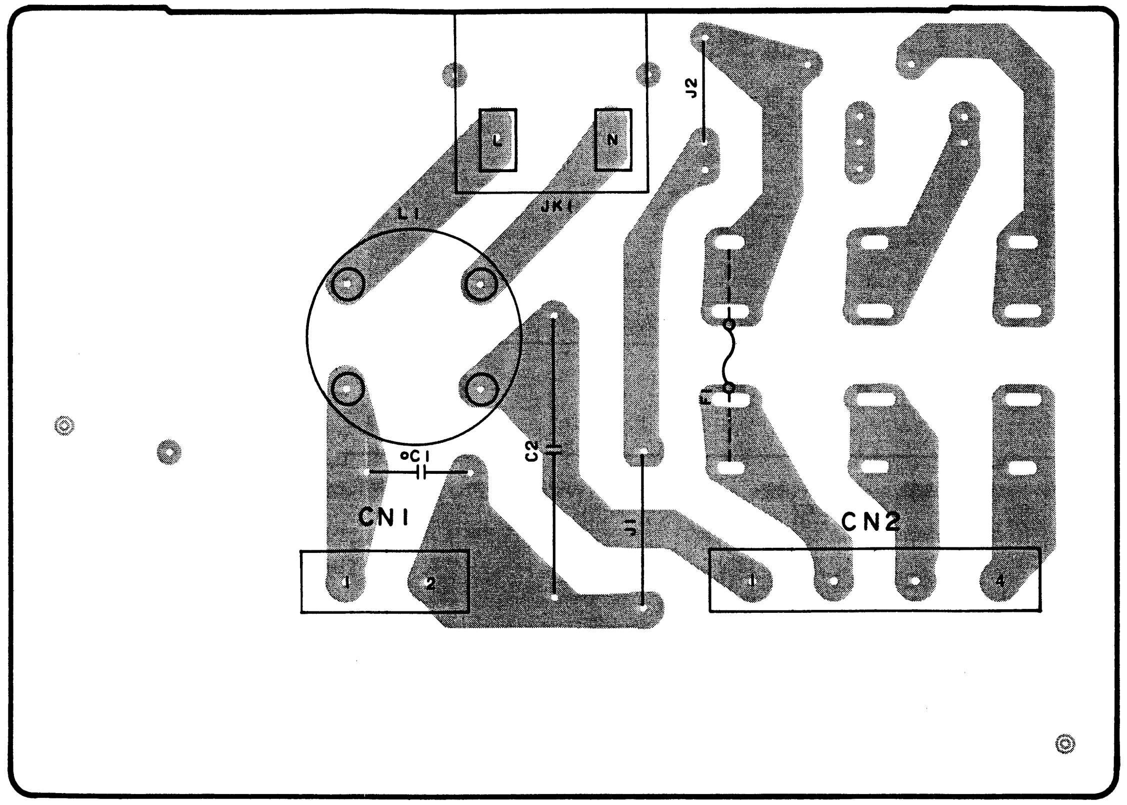
Set the initial setting mode (Refe

F
E
D
C
B
A

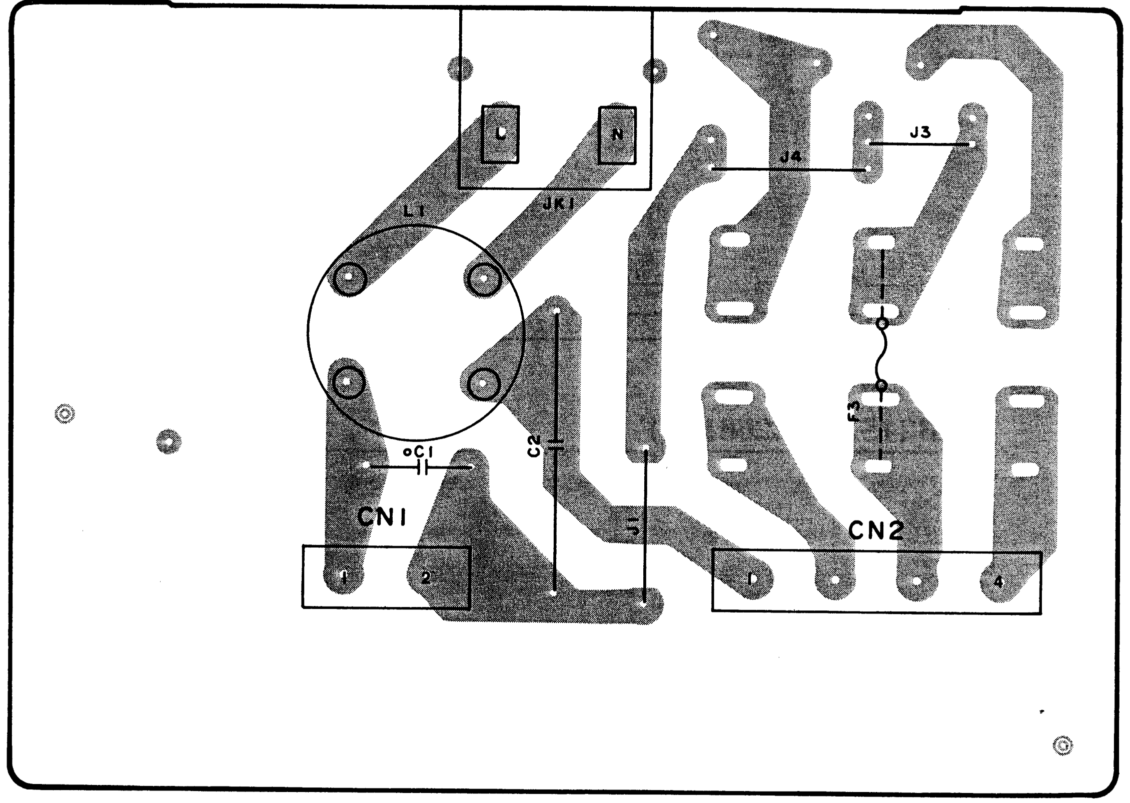
1 2 3 4 5 6 7 8 9 10

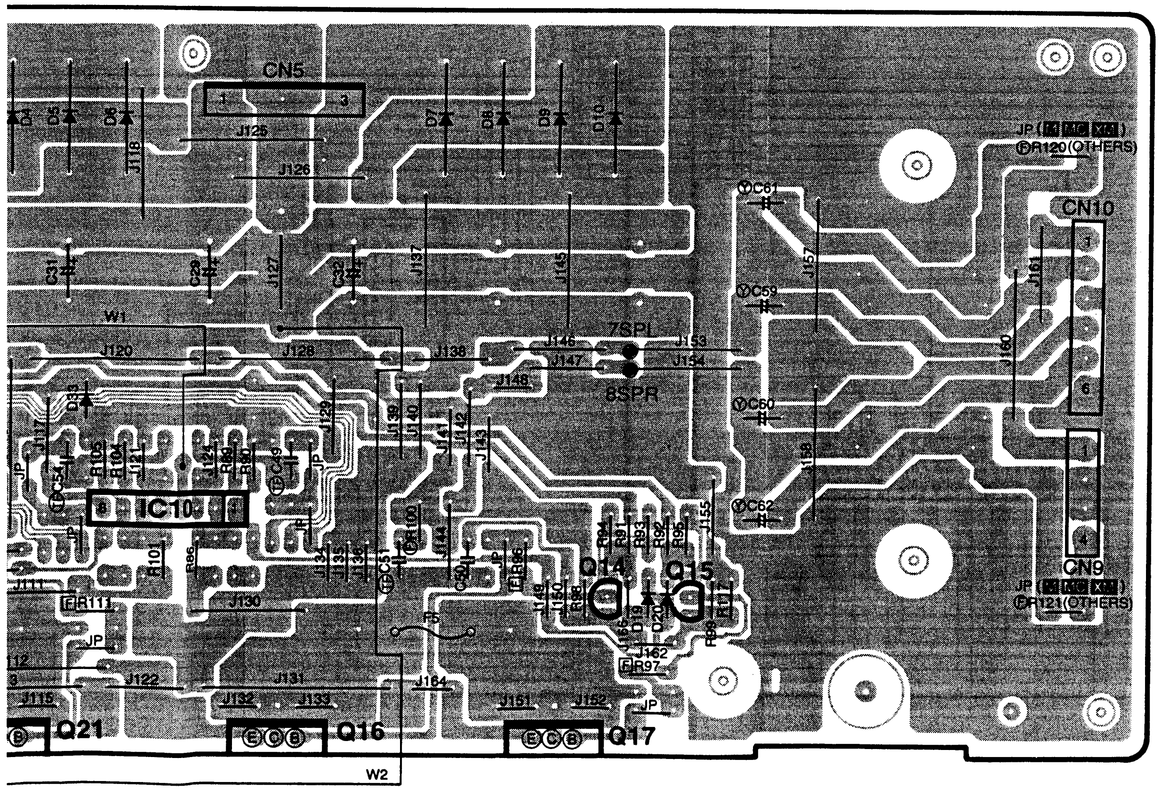


ACP M MC XM (SXPG216081)

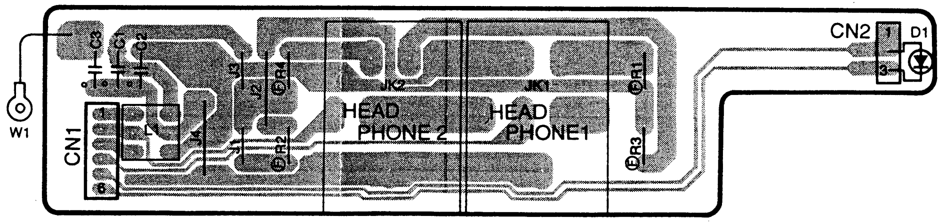

L
N
L1
JK1
J2
C1
C2
J1
F1
CN1
CN2
1
2
4

ACP Others(SXPG216061)


L
N
L1
JK1
J3
J4
C1
C2
J1
F3
CN1
CN2
1
2
4


CN5
CN10
CN9
IC10
Q14
Q15
Q16
Q17
Q21
7SPL
8SPR
W1
W2
JP (M MC XM)
R120(OTHERS)
R121(OTHERS)

HP (SXPG226521E)

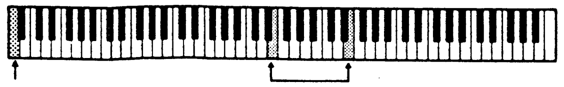

CN1
CN2
D1
W1
C3
C2
JK2
HEAD PHONE 2
JK1
HEAD PHONE1
R1
R2
R3
R4
J1
J2
J3
J4

■ Measuring Condition

Check Point ❸~❽

Set to the self-diagnostic mode followings.

- While pressing two E keys (①) simultaneously, turn on the power switch.
- SOUND .... SPECIAL PERC
- Main Volume .... Center
- Keyboard... A₁ (②)

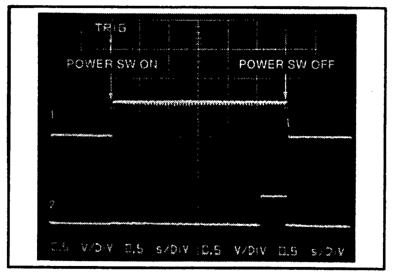


② A₁ Key ① E Keys

Check Point ❶, ❷

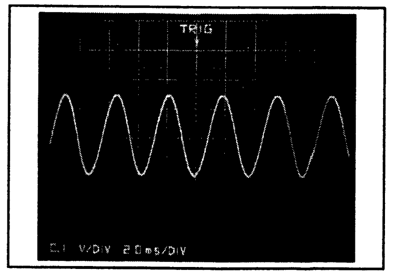
Set the initial setting mode (Refer to page I-6)

❶ SNS, ❷ PMUT

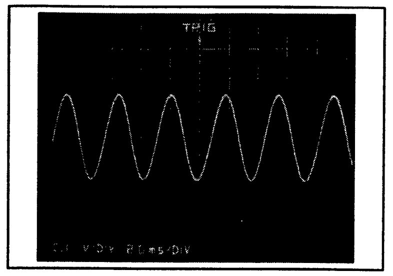


• Power SW .... ON → OFF

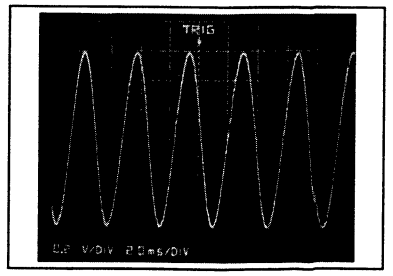
❸ AMPL, ❹ AMPR



❺ HPL, ❻ HPR

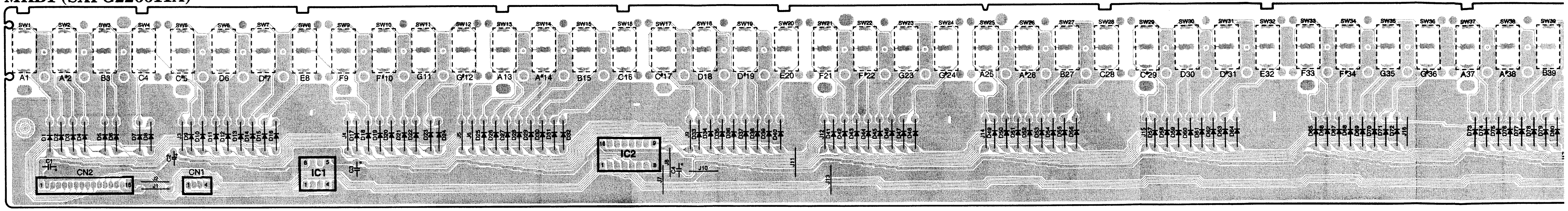


❼ SPL, ❽ SPR

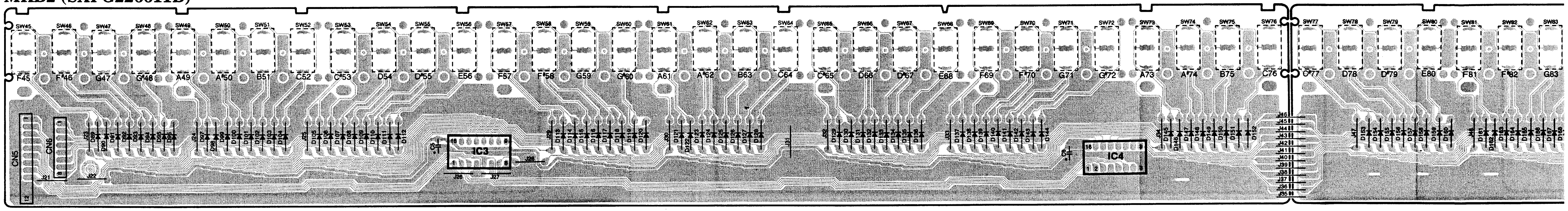


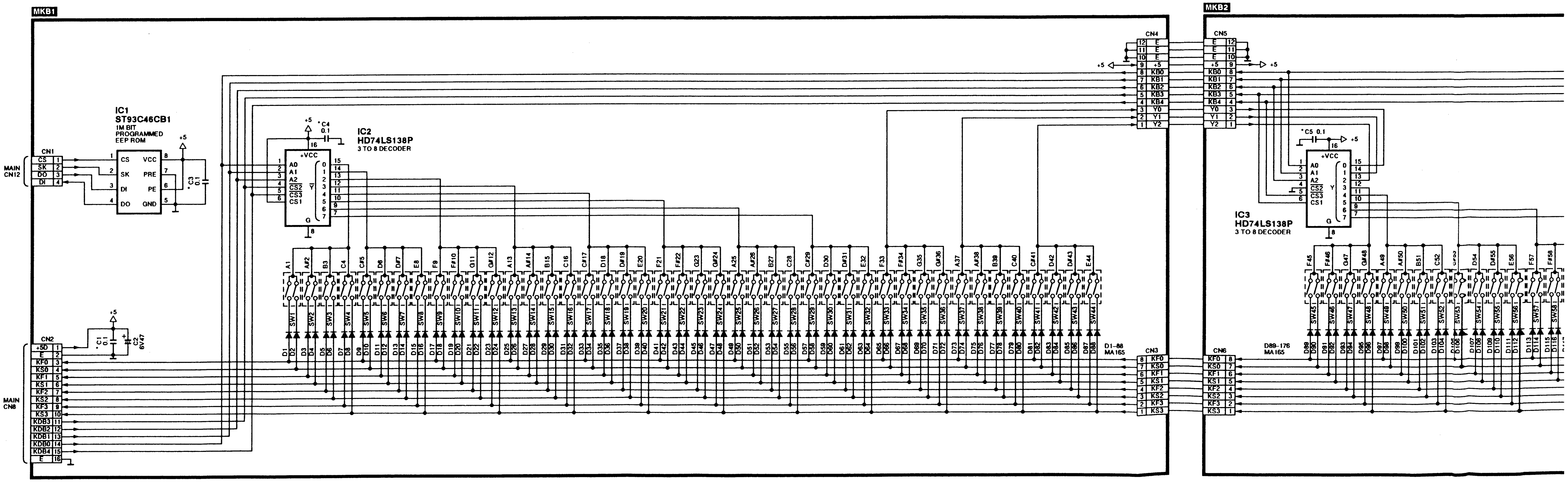
MKB1/MKB2

MKB1 (SXPG226611A)


SW1
SW2
SW3
SW4
A1
A#2
B3
C4
C#5
D6
D#7
E8
F9
F#10
G11
G#12
A13
A#14
B15
C16
C#17
D18
D#19
E20
F21
F#22
G23
G#24
A25
A#26
B27
C28
C#29
D30
D#31
E32
F33
F#34
G35
G#36
A37
A#38
B39
CN2
CN1
IC1
IC2

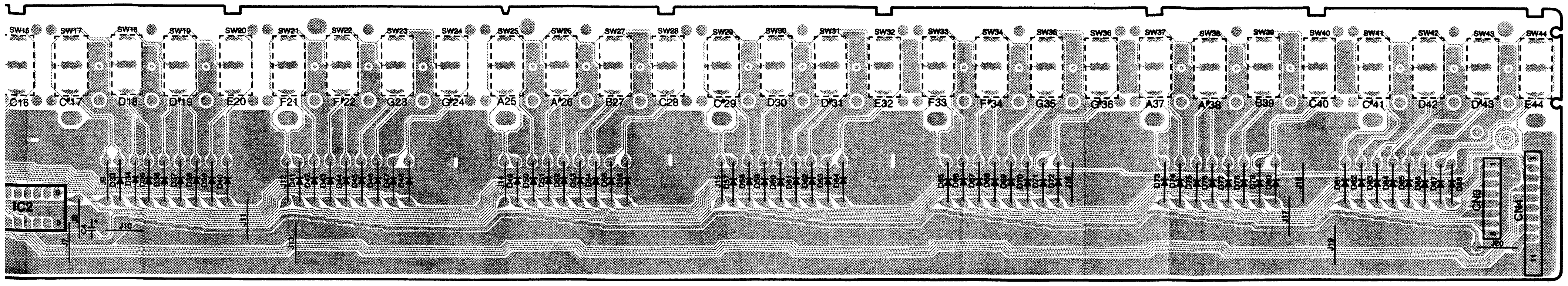
MKB2 (SXPG226611B)

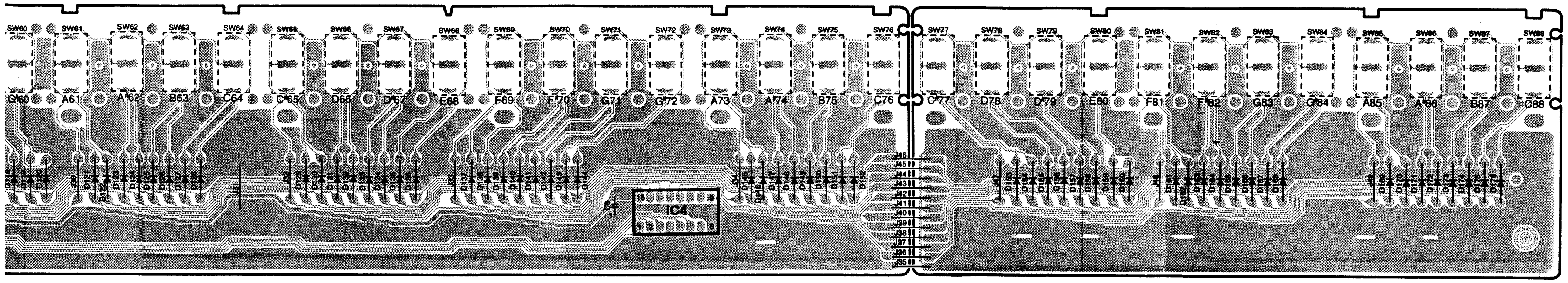

SW45
SW46
SW47
F45
F#46
G47
G#48
A49
A#50
B51
C52
C#53
D54
D#55
E56
F57
F#58
G59
G#60
A61
A#62
B63
C64
C#65
D66
D#67
E68
F69
F#70
G71
G#72
A73
A#74
B75
C76
C#77
D78
D#79
E80
F81
F#82
G83
CN5
CN6
IC3
IC4

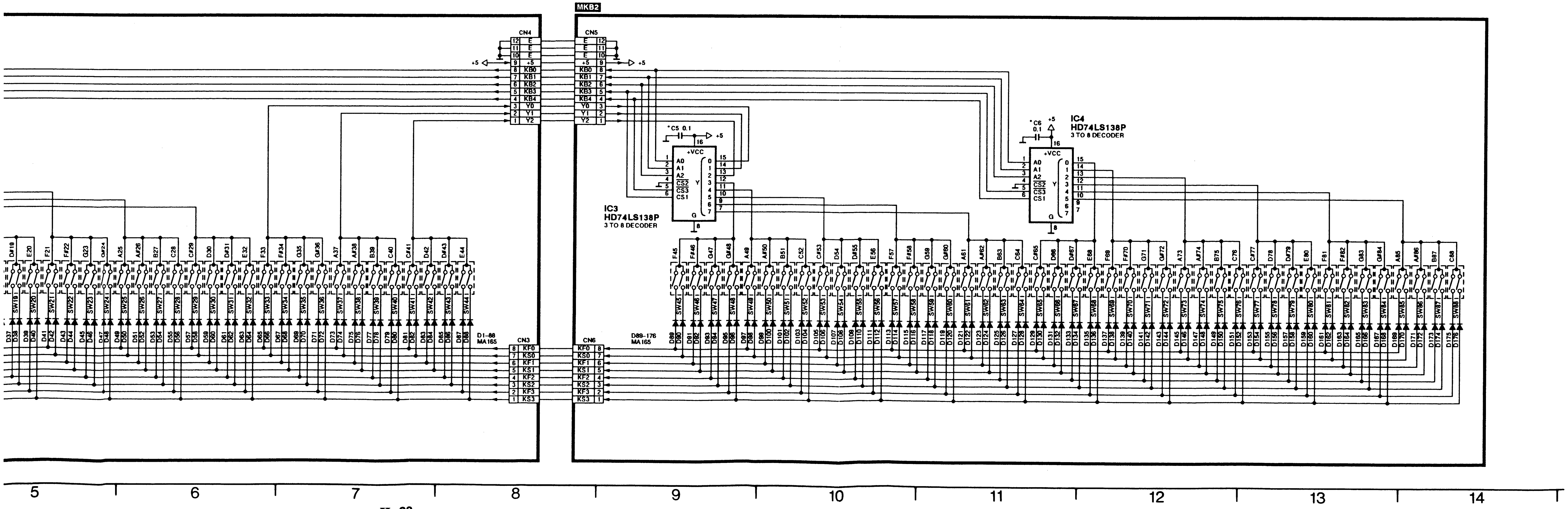

MKB1
MKB2
IC1
ST93C46CB1
1M BIT
PROGRAMMED
EEP ROM
CS
SK
DI
DO
VCC
PRE
PE
GND
C3 0.1
+5
MAIN CN12
CN1
IC2
HD74LS138P
3 TO 8 DECODER
C4 0.1
A0
A1
A2
CS2
CS3
CS1
+VCC
G
CN2
MAIN CN8
+5D
E
KF0
KS0
KF1
KS1
KF2
KS2
KF3
KS3
KDB3
KDB2
KDB1
KDB0
KDB4
C1 0.1
C2 6V47
D1-88
MA165
CN3
CN4
KB0
KB1
KB2
KB3
KB4
Y0
Y1
Y2
CN5
CN6
D89-176
MA165
IC3
HD74LS138P
3 TO 8 DECODER
C5 0.1

F
E
D
C
B
A

1
2
3
4
5
6
7
8
9
10


SW16 SW17 SW18 SW19 SW20 SW21 SW22 SW23 SW24 SW25 SW26 SW27 SW28 SW29 SW30 SW31 SW32 SW33 SW34 SW35 SW36 SW37 SW38 SW39 SW40 SW41 SW42 SW43 SW44
C16 C#17 D18 D#19 E20 F21 F#22 G23 G#24 A25 A#26 B27 C28 C#29 D30 D#31 E32 F33 F#34 G35 G#36 A37 A#38 B39 C40 C#41 D42 D#43 E44
IC2
CN3
CN4


SW60 SW61 SW62 SW63 SW64 SW65 SW66 SW67 SW68 SW69 SW70 SW71 SW72 SW73 SW74 SW75 SW76 SW77 SW78 SW79 SW80 SW81 SW82 SW83 SW84 SW85 SW86 SW87 SW88
G#60 A61 A#62 B63 C64 C#65 D66 D#67 E68 F69 F#70 G71 G#72 A73 A#74 B75 C76 C#77 D78 D#79 E80 F81 F#82 G83 G#84 A85 A#86 B87 C88
IC4


MKB2
CN4
CN5
E
+5
KB0
KB1
KB2
KB3
KB4
Y0
Y1
Y2
*C5 0.1
*C6 0.1
+VCC
A0
A1
A2
CS2
CS3
CS1
G
IC3
HD74LS138P
3 TO 8 DECODER
IC4
HD74LS138P
3 TO 8 DECODER
CN3
CN6
KF0
KS0
KF1
KS1
KF2
KS2
KF3
KS3
D1–88
MA165
D89–176
MA165
5
6
7
8
9
10
11
12
13
14

REPLACEMENT PARTS LIST

Notes:

1. The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retension period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.
   After the end of this period, the assembly will no longer be available.
2. Important safety notice
   Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. The "S" mark is service standard parts and may differ from production parts.
4. ○ mark are new parts.
5. For part No. with area mark, check the area when placing an order.

■PRINTED CIRCUIT BOARD

	RTL	Area	Part No.	Description	P/S
○	RTL	EN EK EZ EW EF EA EP EH X XL XR XS XD XT	SXPG226421	MAIN	1
○	RTL	M MC XM	SXPG226461	MAIN	1
○	RTL		SXPG226521A	CPL	1
○	RTL		SXPG226521B	CPR	1
○	RTL		SXPG226511C	INV	1
○	RTL		SXPG219641	JACK	1
	RTL		SXPG218211	PKB	1
○	RTL	EN EK EZ EW EF EA EP EH X XL XR XS XD XT	SXPG2170191	AS	1
○	RTL	M MC XM	SXPG2170201	AS	1
○	RTL	EN EK EZ EW EF EA EP EH XL XR	SXPG216061	ACP	1
○	RTL	M MC XM	SXPG216081	ACP	1
○	RTL	X XS XD XT	SXPG216091	ACP	1
○	RTL		SXPG226521E	HP	1
○	RTL		SXPG226611A	MKB1	1
○	RTL		SXPG226611B	MKB2	1
○	RTL		QSLG019AA	LCD	1

MAIN MAIN CIRCUIT

	Ref. No.	Part No.	Description	P/S
			INTEGRATED CIRCUITS	
	IC1	TMP95C061AF	IC, 16BIT MICROCONTROLLER	1
○	IC3	QSIGCR700CX	IC, 4M EP ROM	1
	IC3-1	HN27C4096G10	(BLANK ROM)	1
○	IC4	QSIGCR700BX	IC, 4M EP ROM	1
	IC4-1	HN27C4096G10	(BLANK ROM)	1
○	IC5	QSIGCR700AX	IC, 4M EP ROM	1
	IC5-1	HN27C4096G10	(BLANK ROM)	1
○	IC7	QSIGT3C16067	IC, 16M MASK ROM	1
	IC8	M5M44170AJ7S	IC, 4M BIT D RAM	1
	IC10	D74HC139GS	IC, CMOS LOGIC	1
	IC11	D74HC21GS	IC, CMOS LOGIC	1
	IC12	D74HC138GS	IC, CMOS LOGIC	1
	IC13	D72070GF3BE	IC, 8BIT MICROCONTROLLER	1
	IC14	SED1330FBA	LCD CONTROLLER	1
	IC15	LH5P832N-10	256K BIT STATIC RAM	1
○	IC16, 17	D96140GD001	IC, 16BIT MICROCONTROLLER	2
○	IC18	QSIGU3C32392	IC, 32M MASK ROM	1
	IC21	TC7W08F	DUAL 2-INPUT AND GATES	1
○	IC22	QSIGU3C32396	IC, 32M MASK ROM	1
	IC24	TC7W08F	DUAL 2-INPUT AND GATES	1
	IC26	TC7W04F	DUAL 2-INPUT OR GATES	1
	IC27	D6383GF-3BA	IC, 16BIT MICROCONTROLLER	1
	IC28	LC321664AJ80	1M BIT DYNAMIC RAM	1
	IC29	D74HC374GS	IC, CMOS LOGIC	1
	IC30	TC7W32F	DUAL 2-INPUT OR GATES	1
	IC33, 34	M5218AFP	OPERATIONAL AMPLIFIER	2
	IC35	BA10393F	COMPARATOR	1
	IC37, 38	TC74AC245F	IC, CMOS LOGIC	2
	IC39	PCM69AU	D-A CONVERTER	1
	IC40	TC7W08F	DUAL 2-INPUT AND GATES	1
			TRANSISTORS	
	Q1	2SA1643	TRANSISTOR	1
S	Q2	2SC1815GR	TRANSISTOR	1
	Q3	2SB709AR	TRANSISTOR	1
	Q4	2SD601AQ	TRANSISTOR	1
	Q5	2SB709AR	TRANSISTOR	1
	Q6	2SD601AQ	TRANSISTOR	1
	Q7	2SB709AR	TRANSISTOR	1
S	Q8	2SC1815GR	TRANSISTOR	1
	Q11, 12	2SD601AQ	TRANSISTOR	2
			DIODES	
	D1 ⚠	MA2062LF	ZENER, 6.2V	1
○	D2	SFPB-74	DIODE, SI	1
○	D3	MA1051M	DIODE, SI	1
S	D4	MA162A	MA150IR (SUB. PART)	1
	D6, 7	SVDGERA1502	RECTIFIER	2
○	D8	MA1200M	DIODE, SI	1
S	D9	MA162A	MA150IR (SUB. PART)	1
	D10	MA1030	ZENER, 3.0V	1
S	D11	MA162A	MA150IR (SUB. PART)	1
	D13	MA1062M	ZENER, 6.2V	1
	D15~17	MA162A	MA150IR (SUB. PART)	3
			OSCILLATORS	
	X1	QSXG2F2800A	CERAMIC OSCILLATOR	1
○	X2	QSXG1A1128A	CRYSTAL OSCILLATOR	1
	X3	QSXG2F2500A	25MHz CERAMIC OSCILLATOR	1
	X4	QSXG2F2400A	CERAMIC OSCILLATOR	1
○	X6	QSXG2F1000A	CERAMIC OSCILLATOR	1
			COMPONENT COMBINATIONS	
○	Z1~4	EXBV8V100J	RESISTOR RESISTOR	4
	Z5~9	EXBV8V470J	RESISTOR RESISTOR	5
○	Z10	EXBV8V154J	RESISTOR RESISTOR	1
	Z11~15	EXBV8V101J	100Ω×4	5

Ref. No.	Part No.	Description	P/S
Z16～19	EXBV8V221J	220Ω×4	4
Z20～24	EXBV8V101J	100Ω×4	5
Z25～28	EXBV8V221J	220Ω×4	4
Z29, 30	EXBV8V103J	10KΩ×4	2
Z31～33	EXBS8V471J	470Ω×4	3
Z34	EXBS8V222J	2.2KΩ×4	1
Z35	EXBV8V102J	1KΩ×4	1
Z36	EXBS8V103J	10KΩ×4	1
Z37	EXBS8V102J	1KΩ×4	1
Z38	EXBS8V471J	470Ω×4	1
Z39	EXBS8V103J	10KΩ×4	1
Z41～43	EXBS8V470J	47Ω×4	3
Z44, 45	EXBV8V101J	100Ω×4	2
Z46	EXBS8V471J	470Ω×4	1

COILS

Ref. No.	Part No.	Description	P/S
L1	QLQGT1T121SA	120μH	1
L4, 5	QLQGT1B800MA	80μH	2

IC PROTECTOR

Ref. No.	Part No.	Description	P/S
IP1 ⚠	ICP-N10T104	IC PROTECTOR	1

WIRE

Ref. No.	Part No.	Description	P/S
W1 ⚠	QEXGRA01005A	WIRE	1

RESISTORS

Ref. No.	Part No.	Description	P/S
JP4	ERD25V0R00	CARBON FILM RESISTOR	1
JP9, 10, 13	ERJ6GEY0R00V	0Ω	3
JP22	ERJ6GEYJ102V	1KΩ	1
JP23, 24, 30, 32, 37	ERJ6GEY0R00V	0Ω	5
L2, 3	ERD25V0R00	CARBON FILM RESISTOR	2
R1	ERJ6GEYJ101V	100Ω	1
R2	ERJ6GEYJ472V	4.7KΩ	1
R3	ERJ6GEYJ104V	100KΩ	1
R4	ERJ6GEYJ101V	100Ω	1
R5, 6	ERJ6GEYJ471V	470Ω	2
R7	ERJ6GEYJ221V	220Ω	1
R8	ERJ6GEY0R00V	0Ω	1
R9	ERJ6GEYJ473V	47KΩ	1
R10	ERJ6GEYJ223V	22KΩ	1
R11	ERJ6GEYJ153V	15kΩ	1
R12	ERJ6GEYJ102V	1KΩ	1
R13	ERJ6GEYJ103V	10KΩ	1
R14	ERJ6GEYJ104V	100KΩ	1
R15	ERJ6GEYJ222V	2.2KΩ	1
R16, 17	ERJ6GEYJ102V	1KΩ	2
R18	ERJ6GEYJ103V	10KΩ	1
R19	ERJ6GEYJ102V	1KΩ	1
R20	ERJ6GEYJ472V	4.7KΩ	1
R21	ERJ6GEYJ103V	10KΩ	1
R22	ERJ6GEYJ101V	100Ω	1
R23	ERJ6GEYJ471V	470Ω	1
R24	ERJ6GEYJ101V	100Ω	1
R25	ERJ6GEYJ332V	3.3KΩ	1
R26	ERJ6GEYJ102V	1KΩ	1
R27	ERJ6GEYJ682V	6.8KΩ	1
R28	ERJ6GEYJ104V	100KΩ	1
R29	ERJ6GEYJ331V	330Ω	1
R32～35	ERJ6GEYJ221V	220Ω	4
R37	ERJ6GEYJ331V	330Ω	1
R38, 39	ERJ6GEYJ682V	6.8KΩ	2
R42, 43	ERJ6GEYJ563V	56KΩ	2
R44	ERJ6GEYJ682V	6.8KΩ	1

Ref. No.	Part No.	Description	P/S
R45	ERJ6GEY0R00V	0Ω	1
R46	ERJ6GEYJ682V	6.8KΩ	1
R47	ERJ6GEYJ223V	22KΩ	1
R48	ERJ6GEYJ682V	6.8KΩ	1
R49	ERJ6GEYJ102V	1KΩ	1
R50	ERJ6GEYJ682V	6.8KΩ	1
R51	ERJ6GEYJ223V	22KΩ	1
R52	ERJ6GEYJ221V	220Ω	1
R53, 57, 59	ERJ6GEYJ102V	1KΩ	3
R62～64	ERJ6GEYJ103V	10KΩ	3
R66	ERJ6GEY0R00V	0Ω, M MC XM	1
R67	ERJ6GEYJ103V	10KΩ	1
R70	ERJ6GEYJ471V	470Ω	1
R71～73	ERJ6GEYJ222V	2.2KΩ	3
R74	ERJ6GEYJ101V	100Ω	1
R75	ERJ6GEYJ104V	100KΩ	1
R77	ERJ6GEYJ470V	47Ω	1
R79, 80	ERJ6GEYJ103V	10KΩ	2
R81	ERJ6GEYJ222V	2.2KΩ	1
R82	ERJ6GEYJ470V	47Ω	1
R83	ERJ6GEY0R00V	0Ω	1
R84	ERJ6GEYJ224V	220KΩ	1
R85	ERJ6GEYJ471V	470Ω	1
R86	ERJ6GEYJ102V	1KΩ	1
R87	ERJ6GEYJ471V	470Ω	1
R88	ERJ6GEY0R00V	0Ω	1
R89	ERJ6GEYJ222V	2.2KΩ	1
R90	ERJ6GEYJ102V	1KΩ	1
R91～95	ERJ6GEYJ221V	220Ω	5
R96	ERJ6GEYJ472V	4.7KΩ	1
R98	ERJ6GEYJ104V	100KΩ	1
R99, 100	ERJ6GEYJ101V	100Ω	2
R101 ⚠	ERD2FCVJ6R8	6.8Ω, 1/4W, FUSE TYPE	1
R102	ERJ6GEYJ222V	2.2KΩ	1
R104	ERJ6GEYJ102V	1KΩ	1
R105, 106	ERJ6GEYJ222V	2.2KΩ	2
R107	ERJ6GEYJ331V	330Ω	1
R108, 109	ERJ6GEY0R00V	0Ω	2

CAPACITORS

Ref. No.	Part No.	Description	P/S
○ C1	ECA0JM102	ALUMINIUM CAPACITOR	1
○ C3	ECA1VM470	ALUMINIUM CAPACITOR	1
C4	ECUV1H102JX	0.001μF	1
C5, 6	ECRF1H104ZF	0.1μF	2
C8	ECQV1H683JM	0.068μF	1
○ C9	ECA1JM470	ALUMINIUM CAPACITOR	1
C10	ECQV1H104JM	0.1μF	1
C11	ECQV1H224JM	0.22μF	1
C12, 16	ECEA1HKA010	1μF, 50V	2
C19	ECUV1H223KBX	0.022μF	1
C20	ECUV1H182JX	MULTILAYER CERAMIC CHIP CAPACITOR	1
C21	ECUV1H472KBG	0.0047μF	1
C22, 23	ECUV1H333KBX	0.033μF	2
C24	ECUV1H470JG	47pF	1
C28, 31, 34	ECUV1H104ZFX	0.1μF	3
C35, 36	ECUV1H101JG	100pF	2
C39, 45	ECUV1H104ZFX	0.1μF	2
C50	ECUV1H221JG	220pF	1
C51	ECEA1HKN010	1μF, 50V	1
C52	ECUV1H221JG	220pF	1
C53, 54	ECEA1HKN010	1μF, 50V	2
C55	ECUV1H221JG	220pF	1
C56	ECEA1HKN010	1μF, 50V	1
C57	ECUV1H221JG	220pF	1
C60～63, 68, 70, 71, 73～77	ECUV1H104ZFX	0.1μF	12

	Ref. No.	Part No.	Description	P/S
	C60~63, 68, 70, 71, 73~77	ECUV1H104ZFX	0.1μF	12
	C79	ECRF1H104ZF	0.1μF	1
	C80~83, 85~88, 90, 91, 94~96, 100, 101, 103	ECUV1H104ZFX	0.1μF	16
	C104	ECRF1H104ZF	0.1μF	1
○	C105	ECA1CM101	ALUMINIUM CAPACITOR	1
	C106, 107	ECRF1H104ZF	0.1μF	2
	C108	ECEA1CKA470	47μF, 16V	1
	C109	EECS5R5V105	1F, 5.5V, MEMORY BACK-UP	1
	C110~114	ECUV1H101JG	100pF	5
	C116	ECEA0JKA470	47μF, 6.3V	1
	C118, 120, 123	ECUV1H104ZFX	0.1μF	3
	C124	ECEA1CKA100	10μF, 16V	1
	C125, 126	ECUV1H104ZFX	0.1μF	2
	C127	ECUV1C224KBX	CERAMIC CAPACITOR, MULTI LAYER	1
	C129~134	ECUV1H104ZFX	0.1μF	6
	C135, 136	ECUV1H101JG	100pF	2
	C137	ECUV1C224KBX	CERAMIC CAPACITOR, MULTI LAYER	1
	C138~141, 144~148	ECUV1H104ZFX	0.1μF	9

	Ref. No.	Part No.	Description	P/S
	RESISTORS			
	R2	ERDS2TJ103	10kΩ	1
	R3	ERDS2T0	0Ω, 1/4W	1
	R4	ERDS2TJ101	100Ω	1
	R5	ERDS2TJ471	470Ω	1
	R6, 7	ERDS2TJ221	220Ω	2
	R8	ERDS2TJ471	470Ω	1
	R9, 10	ERDS2TJ103	10kΩ	2
	R11, 12	ERDS2TJ472	4.7kΩ	2
	R13, 14	ERDS2TJ473	47kΩ	2
	R15, 16	ERDS2TJ104	100kΩ	2
	R17~24, 26~31	ERDS2TJ103	10kΩ	14
	R32~37	ERDS2TJ101	100Ω	6
	R38, 39	ERDS2TJ680	68Ω	2
	CAPACITORS			
	C1	ECEA0JKA331	330μF, 6.3V	1
	C2	ECRF1H104ZF	0.1μF	1
	C3	ECBA1E223ZF	0.022μF	1
	C4	ECEA0JKA101	100μF, 6.3V	1
	C7, 8	ECBA1H102KB	0.001μF	2
	C9~11	ECRF1H104ZF	0.1μF	3

CPL CONTROL PANEL LEFT CIRCUIT

	Ref. No.	Part No.	Description	P/S
	INTEGRATED CIRCUITS			
	IC1	M37471M2196S	8BIT MICROCOMPUTER	1
	IC2	HD74LS07P	HEX BUFFERS	1
	TRANSISTORS			
	Q1~6	2SA830SB	TRANSISTOR	6
	Q7, 8	2SB621ARS	TRANSISTOR	2
	DIODES			
	D1~5, 7~14, 18~35, 39, 41~56	MA165	DIODE	48
	D100~107, 115, 116, 120~127, 130, 131, 136, 137, 140, 141, 149~155	LN282R	LED (RED)	31
	D110~112, 114, 132, 133, 135, 142~144	LN382G	LED (GREEN)	10
	OSCILLATOR			
	X1	EF0EC4004A3	4MHz, CERAMIC OSCILLATOR	1
	SWITCHES			
	ESW1	QSRGT002AA	ENCODER SWITCH	1
	S1~5, 7~14, 18~35, 41~56	EVQ21507K	PUSH SWITCH	47
	VARIABLE RESISTORS			
	VR1	QRVG25N01B53	5KΩ B, MAIN	1
	VR2	QRVG25N01B53	5KΩ B, RHYTHM	1

CPR CONTROL PANEL RIGHT CIRCUIT

	Ref. No.	Part No.	Description	P/S
	INTEGRATED CIRCUITS			
	IC1	M37471M2196S	8BIT MICROCOMPUTER	1
	IC2	HD74LS07P	HEX BUFFERS	1
	TRANSISTORS			
	Q1~6	2SA830SB	TRANSISTOR	6
	Q7~9	2SB621ARS	TRANSISTOR	3
	DIODES			
	D1~6, 9~15, 17~28, 30~39, 41~47, 49~54, 57~72	MA165	DIODE	64
	D100, 110~113, 116, 117, 120~126, 130~136, 148~154	LN282R	LED (RED)	28
	D101~107, 140~145	LN382G	LED (GREEN)	13
	OSCILLATOR			
	X1	EF0EC4004A3	4MHz, CERAMIC OSCILLATOR	1
	SWITCHES			
	S1~6, 9~15, 17~28, 30~39, 41~47, 49~54, 57~72	EVQ21507K	PUSH SWITCH	64

	Ref. No.	Part No.	Description	P/S
	RESISTORS			
	R1~6	ERDS2TJ101	100Ω	6
	R7~9	ERDS2TJ680	68Ω	3
	R12~25	ERDS2TJ103	10kΩ	14
	R27	ERDS2T0	0Ω, 1/4W	1
	R28	ERDS2TJ103	10kΩ	1
	R29	ERDS2TJ471	470Ω	1
	R30, 31	ERDS2TJ221	220Ω	2
	R32	ERDS2TJ471	470Ω	1
	R34, 35	ERDS2TJ103	10kΩ	2
	CAPACITORS			
	C1, 2	ECRF1H104ZF	0.1μF	2
	C4	ECEA0JKA470	47μF, 6.3V	1
	C5	ECBA1E223ZF	0.022μF	1

INV INVERTER CIRCUIT

	Ref. No.	Part No.	Description	P/S
	TRANSISTORS			
	Q1, 2	2SD592ARS	TRANSISTOR	2
	TRANSFORMER			
	T1 ⚠	QTDG003A	TRANSFORMER	1
	RESISTORS			
	R1, 2	ERDS2TJ562	5.6kΩ	2
	CAPACITORS			
	C1	ECEA0JKA101	100μF, 6.3V	1
	C2	ECRF1H104ZF	0.1μF	1
S	C4 ⚠	ECCD3F180JGE	18pF	1
	C5	ECHS1473JZW	0.047μF	1

JACK JACK CIRCUIT

	Ref. No.	Part No.	Description	P/S
	INTEGRATED CIRCUIT			
	IC1	SVIGTLP513	PHOTO COUPLER	1
	TRANSISTORS			
S	Q1~3	2SA1015-GR	2SA933STRS (SUB. PART)	3
	DIODES			
	D1, 3, 4, 6, 7	MA165	DIODE	5
	COILS			
	L1	QLQGT1B600MA	COIL	1
	L2~5	QLQGT3T150SA	15μH×3	4
○	L6	QLZG015A	CORE	1
	L7	QLBG002A	0.45μH	1
	JACKS			
	JK1	QJSG007AA	PEDAL IN	1
	JK2	QJSG016AA	MIDI THRU	1
	JK3	QJSG016AA	MIDI OUT	1
	JK4	QJSG016AA	MIDI IN	1
	JK5	QJJG003AA	AUX IN R	1
	JK6	QJJG003AA	AUX IN L	1
	JK7	QJJG003AA	LINE OUT R	1
	JK8	QJJG003AA	LINE OUT L	1
	WIRES			
	W1	QEXGRA01005A	WIRE	1
○	W2	QEXGRA01020E	WIRE	1
	W3	QEXGRA01010J	WIRE	1
	RESISTORS			
	R1, 2	ERDS2TJ102	1kΩ	2
	R4	ERDS2TJ473	47kΩ	1
	R5~7	ERDS2TJ102	1kΩ	3
	R8, 10	ERDS2TJ680	68Ω	2
	R11	ERDS2TJ104	100kΩ	1
	R13	ERDS2TJ151	150Ω	1
	R14	ERDS2TJ330	33Ω	1
	R15	ERDS2TJ104	100kΩ	1
	R16	ERDS2TJ221	220Ω	1
	R17	ERDS2TJ331	330Ω	1
	R21, 22	ERDS2TJ681	680Ω	2
	CAPACITORS			
	C1~4	ECRF1H104ZF	0.1μF	4
	C5, 6	ECCR1H221J	220pF	2
	C7	ECKR1E473ZV	0.047μF	1
	C8	ECRF1H104ZF	0.1μF	1
	C11, 12	ECBA1C222MR	0.0022μF	2
	C13	ECRF1H104ZF	0.1μF	1
	C14, 15	ECBA1C222MR	0.0022μF	2
	C16	ECRF1H104ZF	0.1μF	1

PKB PEDAL KEYBOARD CIRCUIT

	Ref. No.	Part No.	Description	P/S
	TRANSISTORS			
S	Q1, 2	2SC1815GR	TRANSISTOR	2
S	Q3	2SA1015-GR	2SA933STRS (SUB. PART)	1
	DIODE			
	D1	GP2S24BC	PHOTO INTERRUPTER	1
	SWITCHES			
	S1, 2	QSTGT001AA	LEVER SWITCH	2
	VARIABLE RESISTOR			
	VR1	EVND8AA03B52	500Ω	1

	Ref. No.	Part No.	Description	P/S
	RESISTORS			
	JR1~3	ERDS2T0	0Ω, 1/4W	3
	R1	ERDS2TJ181	180Ω	1
	R2	ERDS2TJ224	220kΩ	1
	R3	ERDS2TJ333	33kΩ	1
	R4	ERDS2TJ683	68kΩ	1
	R5	ERDS2TJ124	120kΩ	1
	R6	ERDS2TJ224	220kΩ	1
	R7	ERDS2TJ124	120kΩ	1
	R8~10	ERDS2TJ472	4.7kΩ	3
	R11	ERDS2T0	0Ω, 1/4W	1
	R12	ERDS2TJ391	390Ω	1
	R13	ERTD2ZGK102	1KΩ	1
	R14	ERDS2TJ222	2.2kΩ	1
	CAPACITORS			
	C1, 2	ECRF1H104ZF	0.1μF	2
	C3	ECQB1H153JF	0.015μF	1

AS AMP & POWER SUPPLY CIRCUIT

	Ref. No.	Part No.	Description	P/S
	INTEGRATED CIRCUITS			
	IC1 ⚠	M5F78M15L	+15V VOLTAGE REGULATOR	1
	IC2 ⚠	M5F79M15L	−15V VOLTAGE REGULATOR	1
	IC5~10	M5218AL	OPERATIONAL AMPLIFIER	6
	TRANSISTORS			
	Q1	2SD592ARS	TRANSISTOR	1
	Q2	2SB621ARS	TRANSISTOR	1
	Q3	2SD592ARS	TRANSISTOR	1
	Q4	2SB621ARS	TRANSISTOR	1
S	Q5, 6	2SA1015-GR	2SA933STRS (SUB. PART)	2
S	Q7, 11, 12	2SC1815GR	TRANSISTOR	3
S	Q13	2SA1015-GR	2SA933STRS (SUB. PART)	1
S	Q14	2SC1815GR	TRANSISTOR	1
S	Q15	2SA1015-GR	2SA933STRS (SUB. PART)	1
○	Q16 ⚠	2SA1725PY	TRANSISTOR, SI 20MHz 30W	1
○	Q17 ⚠	2SC4511PY	TRANSISTOR, SI 20MHz 30W	1
S	Q18	2SC1815GR	TRANSISTOR	1
S	Q19	2SA1015-GR	2SA933STRS (SUB. PART)	1
○	Q20 ⚠	2SA1725PY	TRANSISTOR, SI 20MHz 30W	1
○	Q21 ⚠	2SC4511PY	TRANSISTOR, SI 20MHz 30W	1
S	Q22	2SA1015-GR	2SA933STRS (SUB. PART)	1
	DIODES			
	D1, 2	SVDGERA1502	RECTIFIER	2
	D3~10 ⚠	SVDS3V20	RECTIFIER	8
	D11, 12	MA4180	ZENER, 18V	2
	D15	MA165	DIODE	1
	D16	EK04	DIODE	1
	D19, 20, 27, 28	MA29WA	DIODE	4
	D33	EK04	DIODE	1
	COILS			
	L1	QLQGT3T150SA	15μH×3	1
	L4	QLQGT1B800MB	80μH	1

	Ref. No.	Part No.	Description	P/S
	FUSES			
	F4, 5 ⚠	XBA2C20TB0	T2A, 250V, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	2
	F4, 5 ⚠	XBA1C25NU100	2.5A, 125V, M MC XM	2
	RESISTORS			
	R9	ERDS2TJ332	3.3kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R9	ERDS2TJ222	2.2kΩ, M MC XM	1
	R10	ERDS2TJ332	3.3kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R10	ERDS2TJ222	2.2kΩ, M MC XM	1
	R11	ERDS2TJ222	2.2kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R11	ERDS2TJ152	1.5kΩ, M MC XM	1
	R12	ERDS2TJ821	820Ω, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R12	ERDS2TJ331	330Ω, M MC XM	1
	R13	ERDS2TJ222	2.2kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R13	ERDS2TJ152	1.5kΩ, M MC XM	1
	R14	ERDS2TJ154	150kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R14	ERDS2TJ124	120kΩ, M MC XM	1
	R15	ERDS2TJ224	220kΩ	1
	R16	ERDS2TJ154	150kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R16	ERDS2TJ124	120kΩ, M MC XM	1
	R18	ERDS2TJ821	820Ω, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R18	ERDS2TJ391	390Ω, M MC XM	1
	R19	ERDS2TJ124	120kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R19	ERDS2TJ472	4.7kΩ, M MC XM	1
	R21	ERDS2TJ152	1.5kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R21	ERDS2TJ681	680Ω, M MC XM	1
	R22	ERDS2TJ124	120kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	R22	ERDS2TJ104	100kΩ, M MC XM	1

Ref. No.	Part No.	Description	P/S
R25	ERDS2TJ821	820Ω, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R25	ERDS2TJ391	390Ω, M MC XM	1
R26	ERDS2TJ124	120kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R26	ERDS2TJ472	4.7kΩ, M MC XM	1
R27	ERDS2TJ224	220kΩ	1
R28	ERDS2TJ821	820Ω, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R28	ERDS2TJ331	330Ω, M MC XM	1
R31	ERDS2TJ152	1.5kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R31	ERDS2TJ681	680Ω, M MC XM	1
R32	ERDS2TJ124	120kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R32	ERDS2TJ104	100kΩ, M MC XM	1
R39	ERDS2TJ332	3.3kΩ	1
R41, 42	ERDS2TJ334	330kΩ	2
R43	ERDS2TJ220	22Ω	1
R45	ERDS2TJ334	330kΩ	1
R46	ERDS2TJ220	22Ω	1
R47	ERDS2TJ334	330kΩ	1
R48, 49	ERDS2TJ222	2.2kΩ	2
R50, 51 ⚠	ERD2FCVG220	22Ω, 1/4W, FUSE TYPE	2
R52, 53	ERDS2TJ103	10kΩ	2
R54, 55 ⚠	ERQ14AJ2R0	2Ω, 1/4W, FUSE TYPE	2
R56 ⚠	ERD2FCVJ6R8	6.8Ω, 1/4W, FUSE TYPE	1
R57 ⚠	ERD2FCJ6R8	6.8Ω, 1/4W, FUSE TYPE	1
R58~60	ERDS2TJ103	10kΩ	3
R61, 62	ERDS2TJ472	4.7kΩ	2
R78, 79	ERDS2T0	0Ω, 1/4W	2
R80, 81	ERDS2TJ104	100kΩ	2
R83	ERDS2TJ103	10kΩ	1
R84	ERDS2TJ473	47kΩ	1
R85	ERDS2TJ332	3.3kΩ	1
R86	ERDS2TJ154	150kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R86	ERDS2TJ124	120kΩ, M MC XM	1
R89	ERDS2TJ153	15kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R89	ERDS2TJ103	10kΩ, M MC XM	1
R90	ERDS2TJ102	1kΩ	1
R91, 92	ERDS2TJ222	2.2kΩ	2
○ R93	ER0S2CKF1691	METAL FILM RESISTOR, 1/4W	1
R94, 95	ER0S2CKF1001	1kΩ, ±1%	2
R96, 97 ⚠	ERD2FCVG101	100Ω, 1/4W, FUSE TYPE	2
R98, 99	ERDS2TJ331	330Ω	2
R100 ⚠	ERD25FVJ4R7	4.7Ω, 1/4W, FLAME-PROOF	1
R101	ERDS2TJ154	150kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R101	ERDS2TJ124	120kΩ, M MC XM	1

Ref. No.	Part No.	Description	P/S
R104	ERDS2TJ153	15kΩ, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
R104	ERDS2TJ103	10kΩ, M MC XM	1
R105	ERDS2TJ102	1kΩ	1
R106, 107	ERDS2TJ222	2.2kΩ	2
○ R108	ER0S2CKF1691	METAL FILM RESISTOR, 1/4W	1
R109, 110	ER0S2CKF1001	1kΩ, ±1%	2
R111 ⚠	ERD2FCVG101	100Ω, 1/4W, FUSE TYPE	1
R112, 113	ERDS2TJ331	330Ω	2
R114 ⚠	ERD2FCVG101	100Ω, 1/4W, FUSE TYPE	1
R115 ⚠	ERD25FVJ4R7	4.7Ω, 1/4W, FLAME-PROOF	1
R116, 117	ERDS2TJ331	330Ω	2
R118 ⚠	ERD2FCVJ6R8	6.8Ω, 1/4W, FUSE TYPE	1
○ R120, 121 ⚠	ERF5TJ100	10Ω, 5W, FLAME-PROOF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	2
R201, 202 ⚠	ERD25FVJ4R7	4.7Ω, 1/4W, FLAME-PROOF	2

CAPACITORS

Ref. No.	Part No.	Description	P/S
C5	ECQG1H682KZ	0.0068μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C5	ECQB1H153JF	0.015μF, M MC XM	1
C6	ECQG1H682KZ	0.0068μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C6	ECQB1H153JF	0.015μF, M MC XM	1
C7	ECQV1H474JM	0.47μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C7	ECQV1H684JM	0.68μF, M MC XM	1
C8	ECQV1H224JM	0.22μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C8	ECQV1H334JM	0.33μF, M MC XM	1
C10	ECQB1H153JF	0.015μF	1
C11	ECQG1H332KZ	0.0033μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C11	ECQG1H682KZ	0.0068μF, M MC XM	1
C12	ECQV1H474JM	0.47μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C12	ECQV1H684JM	0.68μF, M MC XM	1
C13	ECQB1H153JF	0.015μF	1
C14	ECQV1H224JM	0.22μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C14	ECQV1H334JM	0.33μF, M MC XM	1
C16	ECQG1H332KZ	0.0033μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C16	ECQG1H682KZ	0.0068μF, M MC XM	1
C17	ECQV1H683JM	0.068μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1

Ref. No.	Part No.	Description	P/S
C17	ECQV1H154JM	0.15μF, M MC XM	1
C18	ECQG1H332KZ	0.0033μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C18	ECQV1H683JM	0.068μF, M MC XM	1
C19	ECQB1H153JF	0.015μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C19	ECQG1H682KZ	0.0068μF, M MC XM	1
C20	ECQG1H152KZ	0.0015μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C20	ECQG1H102KZ	0.001μF, M MC XM	1
C21	ECQB1H153JF	0.015μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C21	ECQG1H682KZ	0.0068μF, M MC XM	1
C22	ECQG1H152KZ	0.0015μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C22	ECQG1H102KZ	0.001μF, M MC XM	1
C23	ECQV1H683JM	0.068μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C23	ECQV1H154JM	0.15μF, M MC XM	1
C24	ECQG1H332KZ	0.0033μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C24	ECQV1H683JM	0.068μF, M MC XM	1
C25, 26	ECCR1H100D	10pF	2
○ C29, 31	ECA1VM332	ALUMINIUM CAPACITOR	2
C32	ECA1VM472	4700μF, 35V	1
C36, 37	ECRF1H104ZF	0.1μF	2
C38	ECEA1CKA100	10μF, 16V	1
○ C39	ECA1CM331	ALUMINIUM CAPACITOR	1
C49	ECQV1H154JM	0.15μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C49	ECQV1H224JM	0.22μF, M MC XM	1
C50	ECQB1H223JF	0.022μF	1
C51	ECQV1H104JM	0.1μF	1
C54	ECQV1H154JM	0.15μF, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C54	ECQV1H224JM	0.22μF, M MC XM	1
C55	ECQB1H223JF	0.022μF	1
C56	ECQV1H104JM	0.1μF	1
○ C59	ECEA50Y47	ALUMINIUM CAPACITOR, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C59	ECEA50Y22	22μF, 50V, M MC XM	1
○ C60	ECEA50Y47	ALUMINIUM CAPACITOR, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C60	ECEA50Y22	22μF, 50V, M MC XM	1

Ref. No.	Part No.	Description	P/S
○ C61	ECEA50Y1R5K	ALUMINIUM CAPACITOR, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C61	ECEA50Y2R2	2.2μF, 50V, M MC XM	1
○ C62	ECEA50Y1R5K	ALUMINIUM CAPACITOR, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
C62	ECEA50Y2R2	2.2μF, 50V, M MC XM	1

ACP AC POWER SUPPLY CIRCUIT

Ref. No.	Part No.	Description	P/S
COIL			
○ L1 ⚠	QLQGT2T100SA	COIL	1
JACK			
JK1 ⚠	SJVD0203B	AC INLET	1
SWITCH			
S1 ⚠	SSRG100A	VOLTAGE SELECTOR, X XS XD XT	1
FUSES			
F1 ⚠	XBA1C63NU100	6.3A, 125V, M MC XM	1
F1 ⚠	XBA2C31TB0	T3.15A, 250V, X XS XD XT	1
F2 ⚠	XBA2C20TB0	T2A, 250V, X XS XD XT	1
F3 ⚠	XBA2C20TB0	T2A, 250V, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
CAPACITORS			
C1 ⚠	ECKCVA1472MF	4700pF, LINE CAPACITOR	1
C2 ⚠	ECQU2A104MN	0.1μF, 250V, ACROSS-THE LINE CAPACITOR	1

HP HEADPHONES CIRCUIT

Ref. No.	Part No.	Description	P/S
DIODE			
D1	SEL4214RLC05	LED, POWER INDICATOR	1
COIL			
L1	QLQGT3T150SA	15μH×3	1
JACKS			
JK1	SJJG100A	HEADPHONE 1	1
JK2	SJJG100A	HEADPHONE 2	1

Ref. No.	Part No.	Description	P/S
WIRE			
W1	QEXGRA01005A	WIRE	1
RESISTORS			
R1~4 ⚠	ERG1SJ470	47Ω, 1W, FLAME-PROOF	4
CAPACITORS			
C1, 2	ECKR1E473ZV	0.047μF	2
C3	ECRF1H104ZF	0.1μF	1

MKB 1 MANUAL KEYBOARD 1 CIRCUIT

Ref. No.	Part No.	Description	P/S
INTEGRATED CIRCUITS			
IC1	ST93C46CB1	1M BIT PROGRAMMED EEP ROM	1
IC2	HD74LS138P	3 TO 8 DECODER	1
DIODES			
D1~88	MA165	DIODE	88
CAPACITORS			
C1	ECRF1H104ZF	0.1μF	1
C2	ECEA0JKA470	47μF, 6.3V	1
C3, 4	ECRF1H104ZF	0.1μF	2

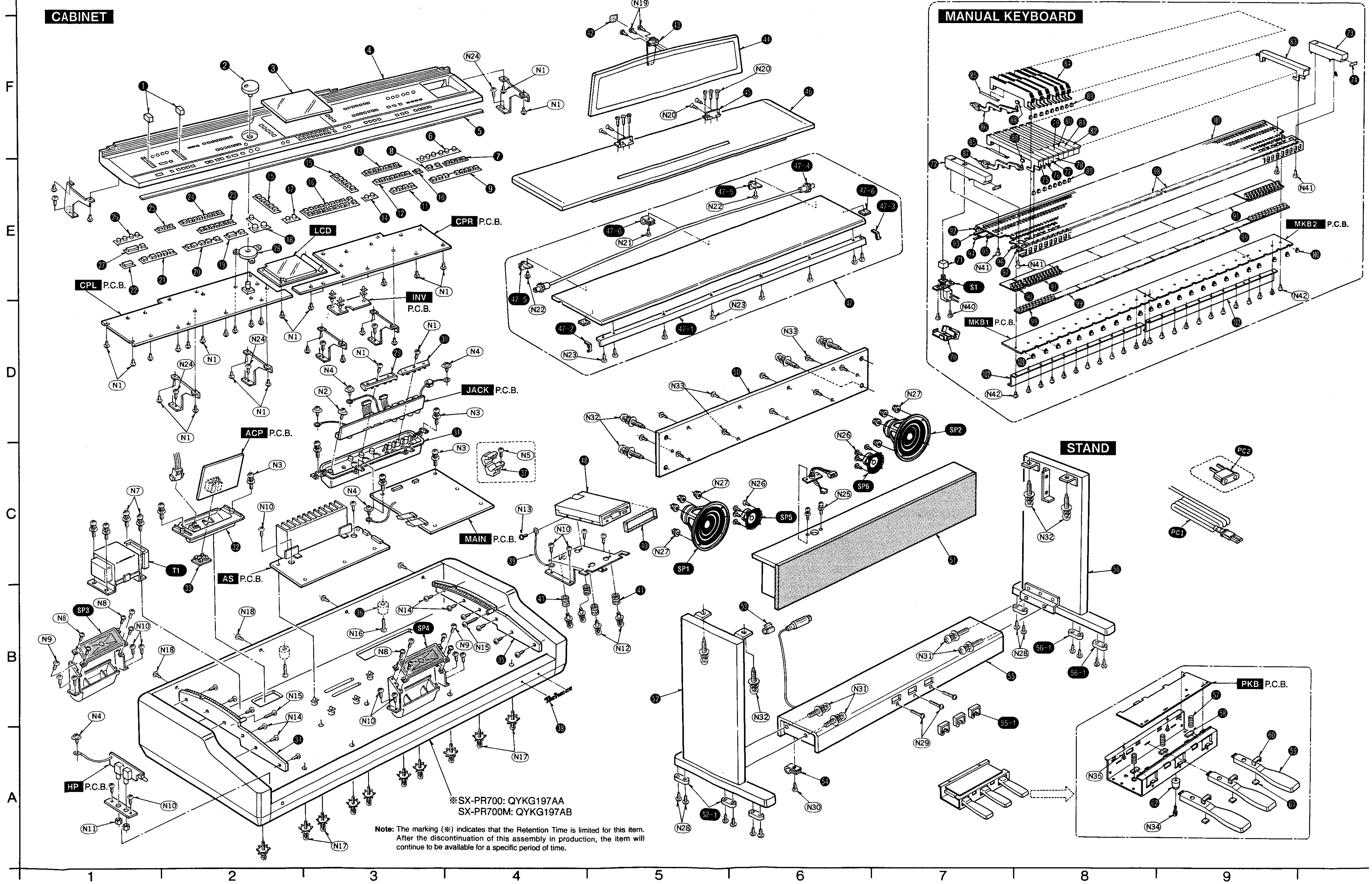
MKB 2 MANUAL KEYBOARD 2 CIRCUIT

Ref. No.	Part No.	Description	P/S
INTEGRATED CIRCUITS			
IC3, 4	HD74LS138P	3 TO 8 DECODER	2
DIODES			
D89~176	MA165	DIODE	88
CAPACITORS			
C5, 6	ECRF1H104ZF	0.1μF	2

■WIRING PARTS

Ref. No.	Part No.	Description	P/S
○ W1 ⚠	QEXGVH03085B	COMMU CABLE W/OUT PLUG	1
○ W2	QEXGVH06095C	COMMU CABLE W/OUT PLUG	1
○ W3	QEXGEL06085D	COMMU CABLE W/OUT PLUG	1
○ W4	QEXGSS06080A	COMMU CABLE W/OUT PLUG	1
○ W5	QEXGSS16100A	COMMU CABLE W/OUT PLUG	1
○ W6	QEXGZA05055A	COMMU CABLE W/OUT PLUG	1
○ W7	QEXGSS04100A	COMMU CABLE W/OUT PLUG	1
○ W8	QEXGZA14020A	COMMU CABLE W/OUT PLUG	1
○ W9	QEXGXH04014A	COMMU CABLE W/OUT PLUG	1
W10	QEXGZA34065A	COMMU CABLE W/OUT PLUG	1
○ W11	QJLG013AA	PEDAL CORD	1
○ W12	QEXGSS04010A	COMMU CABLE W/OUT PLUG	1
W13	QEXGEL06020B	CONNECTOR WITH WIRE	1

CABINET PARTS LOCATION


CABINET
MANUAL KEYBOARD
STAND
CPR P.C.B.
CPL P.C.B.
LCD
INV P.C.B.
JACK P.C.B.
ACP P.C.B.
MAIN P.C.B.
AS P.C.B.
HP P.C.B.
MKB1 P.C.B.
MKB2 P.C.B.
PKB P.C.B.
T1
SP1
SP2
SP3
SP4
SP5
SP6
S1
PC1
PC2
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

※SX-PR700: QYKG197AA
SX-PR700M: QYKG197AB

Note: The marking (※) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time.

REPLACEMENT PARTS LIST......Cabinet and Chassis Parts

Notes:

1. The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retension period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.
   After the end of this period, the assembly will no longer be available.
2. ○ mark are new parts.
   Cabinet Colour
   - SX-PR700...... Black ● SX-PR700M......Walnat
3. Important safety notice
   Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
4. For part No. with area mark, check the area when placing an order.
5. The raw material indication for synthetic resin
   In order to facilitate classification of parts of synthetic resin manufacture and to promote the recycling of natural resources, a raw material symbol for such parts is indicated in the Ref. No./Material column.

SX-PR700 CABINET & CHASSIS PARTS

	Ref. No.		Part No.	Description	P/S
			SWITCH		
	S1	⚠	ESB8273V	POWER SWITCH	1
			SPEAKERS		
	SP1, 2		EAS16PL470A3	16cm, 8Ω	2
	SP3, 4		EAS15S09A	SPEAKER, 13×6cm 8Ω	2
	SP5, 6		EAS65PH31A3	6.5cm, 8Ω	2
			TRANSFORMER		
	T1	⚠	QTPG1N017A	POWER TRANSFORMER, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	T1	⚠	QTPG1N014A	POWER TRANSFORMER, M MC XM	1
			POWER CORD & PLUG		
	PC1	⚠	QJAG013AA	POWER CORD, M MC XM	1
	PC1	⚠	QJAG014AA	POWER CORD, XL XR	1
	PC1	⚠	SJAG65	POWER CORD, EN EZ EW EF EA EP EH X XS XT	1
	PC1	⚠	VJA0733	POWER CORD, EK XD	1
	PC2	⚠	SJP5213-1	ATTACHMENT PLUG, X XT	1
			CABINET PARTS		
	1		SBNG7050A	KNOB	2
	2	ABS	QGUG3002BB	DIAL WHEEL	1
○	3		QKWG028AA	PLATE	1
○	4	PS	QGPG0118BB	CONTROL PANEL	1
	5		QMFG1140AA	FELT	1
○	6		QGUG1357BA	PUSH BUTTON	1
	7		QGUG1358AA	PUSH BUTTON	1
○	8		QGUG1359CA	PUSH BUTTON	1
○	9		QGUG1362CA	PUSH BUTTON	1
○	10		QGUG1352CA	PUSH BUTTON	1
○	11		QGUG1432AA	PUSH BUTTON	1
○	12		QGUG1360CA	PUSH BUTTON	1
○	13		QGUG1359DA	PUSH BUTTON	1
○	14		QGUG1357CA	PUSH BUTTON	1
○	15		QGUG1434AA	PUSH BUTTON	2
○	16		QGUG1431AA01	PUSH BUTTON	1
○	17		QGUG1354AB	PUSH BUTTON	1
○	18		QGUG1351AB01	PUSH BUTTON	1
○	19		QGUG1433AA	PUSH BUTTON	1

SX-PR700M CABINET & CHASSIS PARTS

	Ref. No.		Part No.	Description	P/S
			SWITCH		
	S1	⚠	ESB8273V	POWER SWITCH	1
			SPEAKERS		
	SP1, 2		EAS16PL470A3	16cm, 8Ω	2
	SP3, 4		EAS15S09A	SPEAKER, 13×6cm 8Ω	2
	SP5, 6		EAS65PH31A3	6.5cm, 8Ω	2
			TRANSFORMER		
	T1	⚠	QTPG1N017A	POWER TRANSFORMER, EN EK EZ EW EF EA EP EH X XL XR XS XD XT	1
	T1	⚠	QTPG1N014A	POWER TRANSFORMER, M MC XM	1
			POWER CORD & PLUG		
	PC1	⚠	QJAG013AA	POWER CORD, M MC XM	1
	PC1	⚠	QJAG014AA	POWER CORD, XL XR	1
	PC1	⚠	SJAG65	POWER CORD, EN EZ EW EF EA EP EH X XS XT	1
	PC1	⚠	VJA0733	POWER CORD, EK XD	1
	PC2	⚠	SJP5213-1	ATTACHMENT PLUG, X XT	1
			CABINET PARTS		
	1		SBNG7050A	KNOB	2
	2	ABS	QGUG3002BB	DIAL WHEEL	1
○	3		QKWG028AA	PLATE	1
○	4	PS	QGPG0118BB	CONTROL PANEL	1
	5		QMFG1140AA	FELT	1
○	6		QGUG1357BA	PUSH BUTTON	1
	7		QGUG1358AA	PUSH BUTTON	1
○	8		QGUG1359CA	PUSH BUTTON	1
○	9		QGUG1362CA	PUSH BUTTON	1
○	10		QGUG1352CA	PUSH BUTTON	1
○	11		QGUG1432AA	PUSH BUTTON	1
○	12		QGUG1360CA	PUSH BUTTON	1
○	13		QGUG1359DA	PUSH BUTTON	1
○	14		QGUG1357CA	PUSH BUTTON	1
○	15		QGUG1434AA	PUSH BUTTON	2
○	16		QGUG1431AA01	PUSH BUTTON	1
○	17		QGUG1354AB	PUSH BUTTON	1
○	18		QGUG1351AB01	PUSH BUTTON	1
○	19		QGUG1433AA	PUSH BUTTON	1

	Ref. No.		Part No.	Description	P/S
○	20		QGUG1356BA	PUSH BUTTON	1
○	21		QGUG1353BA	PUSH BUTTON	1
○	22		QGUG1361AB	PUSH BUTTON	1
	23		QGUG1349AA	PUSH BUTTON	1
	24		QGUG1350AA	PUSH BUTTON	1
○	25		QGUG1348BA	PUSH BUTTON	1
○	26		QGUG1347AB	PUSH BUTTON	1
○	27		QGUG1352BA	PUSH BUTTON	1
○	28	PS	QMRG7077AA	DIAL WHEEL CASE	1
	29		QMRG7029AC	BRACKET	1
	30		QMRG7028AC	BRACKET	1
	31		QGKG0076BB	EXTERNAL JACK PANEL	1
	32		QGKG0096AC	AC JACK PANEL, EN M MC EK EZ EW EF EA EP EH XL XR XM	1
	32		QGKG0096BB	AC JACK PANEL, X XS XD XT	1
	33	⚠	SJS9231A	AC INLET COVER, EN EK EZ EW EF EA EP EH X XS XD XT	1
	33	⚠	SJS9334A	AC INLET COVER, M MC XL XR XM	1
○	34	PS	QKSGG020AA	GUIDE	1
○	35	PS	QKSGG021AA	GUIDE	1
	36		QKAG0012AA	FOOT	2
	37		QLZG006A	CORE	1
	38		SGBG160B	BADGE	1
○	39		QEXGRA01007H	WIRE	1
○	40		QMFG1220AA	FELT	1
	41		QMGG029AA	FLOATING RUBBER	4
	42		QMFG1083AB	FELT	1
	43		SBLG7-2	STAY	1
	44		QGAG1026AB	MUSIC RACK	1
	45		SBHG5003-2	HINGE	2
○	46		QKQGA104AA	TOP COVER	1
○	47		QKQGF022AC	KEYBOARD COVER ASS'Y	1
	47-1		QGKG0095AD	ORNAMENT	1
	47-2		QMRG7031CC	PROTECTOR	1
	47-3		QMRG7032CC	PROTECTOR	1
	47-4		QXQG007AA	AXLETREE	1
	47-5		QMRG7056AA	HOLDER	2
	47-6		QWBG002AA	HOLDER	1
	47-7		QMFG1155AA	FELT	2
	48	⚠	QAUG012AA	DDR DRIVE UNIT	1
				STAND	
○	50		QKUG1041AAK	SPEAKER BOX REAR BOARD	1
○	51		QYKG199AAK	SPEAKER BOX	1
○	52		QKQGB397AA	LEFT PLANK ASS'Y	1
	52-1	PP	[SHRG2130B-K	FOOT	3
	53		SHRG9620A	CORD CLAMPER	3
	54		SHRG1230A	CORD CLAMPER	1
○	55		QKQGM072AA	PEDAL BOX ASS'Y	1
	55-1	ABS	[QGKG0113AA	ORNAMENT	3
○	56		QKQGB399AA	RIGHT PLANK ASS'Y	1
	56-1	PP	[SHRG2130B-K	FOOT	3
	57		QMBG009AA	SPRING	3
	58		QMFG1133AA	FELT	3
	59		QMWG4002AA	PEDAL ARM	3
	60		QMFG1134AA	FELT	3
	61		QMFG1135AA	FELT	3
	62		QKAG0011AA	FOOT	1
				MANUAL KEYBOARD	
	70	PP ⚠	SHRG8390A	COVER, POWER SW	1
	71	ABS	QGUG1040AA	BUTTON, POWER SWITCH	1
	72	PS	QGPG0041BB	END COVER PANEL, RIGHT	1
	73	PS	QGPG0042AB	END COVER PANEL, LEFT	1

	Ref. No.		Part No.	Description	P/S
○	20		QGUG1356BA	PUSH BUTTON	1
○	21		QGUG1353BA	PUSH BUTTON	1
○	22		QGUG1361AB	PUSH BUTTON	1
	23		QGUG1349AA	PUSH BUTTON	1
	24		QGUG1350AA	PUSH BUTTON	1
○	25		QGUG1348BA	PUSH BUTTON	1
○	26		QGUG1347AB	PUSH BUTTON	1
○	27		QGUG1352BA	PUSH BUTTON	1
○	28	PS	QMRG7077AA	DIAL WHEEL CASE	1
	29		QMRG7029AC	BRACKET	1
	30		QMRG7028AC	BRACKET	1
	31		QGKG0076BB	EXTERNAL JACK PANEL	1
	32		QGKG0096AC	AC JACK PANEL, EN M MC EK EZ EW EF EA EP EH XL XR XM	1
	32		QGKG0096BB	AC JACK PANEL, X XS XD XT	1
	33	⚠	SJS9231A	AC INLET COVER, EN EK EZ EW EF EA EP EH X XS XD XT	1
	33	⚠	SJS9334A	AC INLET COVER, M MC XL XR XM	1
○	34	PS	QKSGG020AA	GUIDE	1
○	35	PS	QKSGG021AA	GUIDE	1
	36		QKAG0012AA	FOOT	2
	37		QLZG006A	CORE	1
	38		SGBG160B	BADGE	1
○	39		QEXGRA01007H	WIRE	1
○	40		QMFG1220AA	FELT	1
	41		QMGG029AA	FLOATING RUBBER	4
	42		QMFG1083AB	FELT	1
	43		SBLG7-2	STAY	1
	44		QGAG1026AA	MUSIC RACK	1
	45		SBHG5003-2	HINGE	2
○	46		QKQGA104AB	TOP COVER	1
○	47		QKQGF022AD	KEYBOARD COVER ASS'Y	1
	47-1		QGKG0095AC	ORNAMENT	1
	47-2		QMRG7031CC	PROTECTOR	1
	47-3		QMRG7032CC	PROTECTOR	1
	47-4		QXQG007AA	AXLETREE	1
	47-5		QMRG7056AA	HOLDER	2
	47-6		QWBG002AA	HOLDER	1
	47-7		QMFG1155AA	FELT	2
	48	⚠	QAUG012AA	DDR DRIVE UNIT	1
				STAND	
○	50		QKUG1041ABK	SPEAKER BOX REAR BOARD	1
○	51		QYKG199ABK	SPEAKER BOX	1
○	52		QKQGB397AB	LEFT PLANK ASS'Y	1
	52-1	PP	[SHRG2130B-K	FOOT	3
	53		SHRG9620A	CORD CLAMPER	3
	54		SHRG1230A	CORD CLAMPER	1
○	55		QKQGM072AB	PEDAL BOX ASS'Y	1
	55-1	ABS	[QGKG0113AA	ORNAMENT	3
○	56		QKQGB399AB	RIGHT PLANK ASS'Y	1
	56-1	PP	[SHRG2130B-K	FOOT	3
	57		QMBG009AA	SPRING	3
	58		QMFG1133AA	FELT	3
	59		QMWG4002AA	PEDAL ARM	3
	60		QMFG1134AA	FELT	3
	61		QMFG1135AA	FELT	3
	62		QKAG0011AA	FOOT	1
				MANUAL KEYBOARD	
	70	PP ⚠	SHRG8390A	COVER, POWER SW	1
	71	ABS	QGUG1040AA	BUTTON, POWER SWITCH	1
	72	PS	QGPG0041BB	END COVER PANEL, RIGHT	1
	73	PS	QGPG0042AB	END COVER PANEL, LEFT	1

	Ref. No.		Part No.	Description	P/S
	74		QMFG1104AA	FELT	2
○	75	AS	QMWG1001AB	WHITE KEY (FIRST OCTAVE A KEY)	1
○	76	AS	QMWG1002AB	WHITE KEY (B KEY)	8
○	77	AS	QMWG1003AB	WHITE KEY (C KEY)	7
○	78	AS	QMWG1004AB	WHITE KEY (D KEY)	7
○	79	AS	QMWG1005AB	WHITE KEY (E KEY)	7
○	80	AS	QMWG1006AB	WHITE KEY (F KEY)	7
○	81	AS	QMWG1007AB	WHITE KEY (G KEY)	7
○	82	AS	QMWG1008AB	WHITE KEY (A KEY)	7
○	83	AS	QMWG1009AB	WHITE KEY (TOP OCTAVE C KEY)	1
○	84	AS	QMWG2001AC	BLACK KEY	36
	85		SUSG534A	SPRING	88
	86		QMWG8019CA	HAMMER (BLACK KEY)	36
	87		QMWG8017DA	HAMMER (WHITE KEY)	52
	88		SHGG9121A	RUBBER CAP (HAMMER)	88
	89	PA	QMWG8024BA	KEY GUIDE	88
	90	ABS	QMWG8022AA	FULCURUM (4PCS.ON ONE)	1
	91	ABS	QMWG8021AA	FULCURUM (12PCS.ON ONE)	7
	92		SHRGA9080A	SPONGE	2
	93		QMFG1073AA	FELT	2
	94		SHSG3461A	FELT	1
	95		QMFG1101AA	FELT	2
	96		QMFG1061AA	FELT	2
	97		QMFG1060AA	FELT	2
	98		QMFG1086AA	FELT	2
	99		QMWG6006AAK	RUBBER SWITCH (8PCS.ON ONE)	11
	100		SHRG9751A	P.C.B.HOLDER	24
	101		QMWG3003CA	CHASSIS	1
	102		SUWG3157A	ANGLE	2

SCREWS & WASHERS

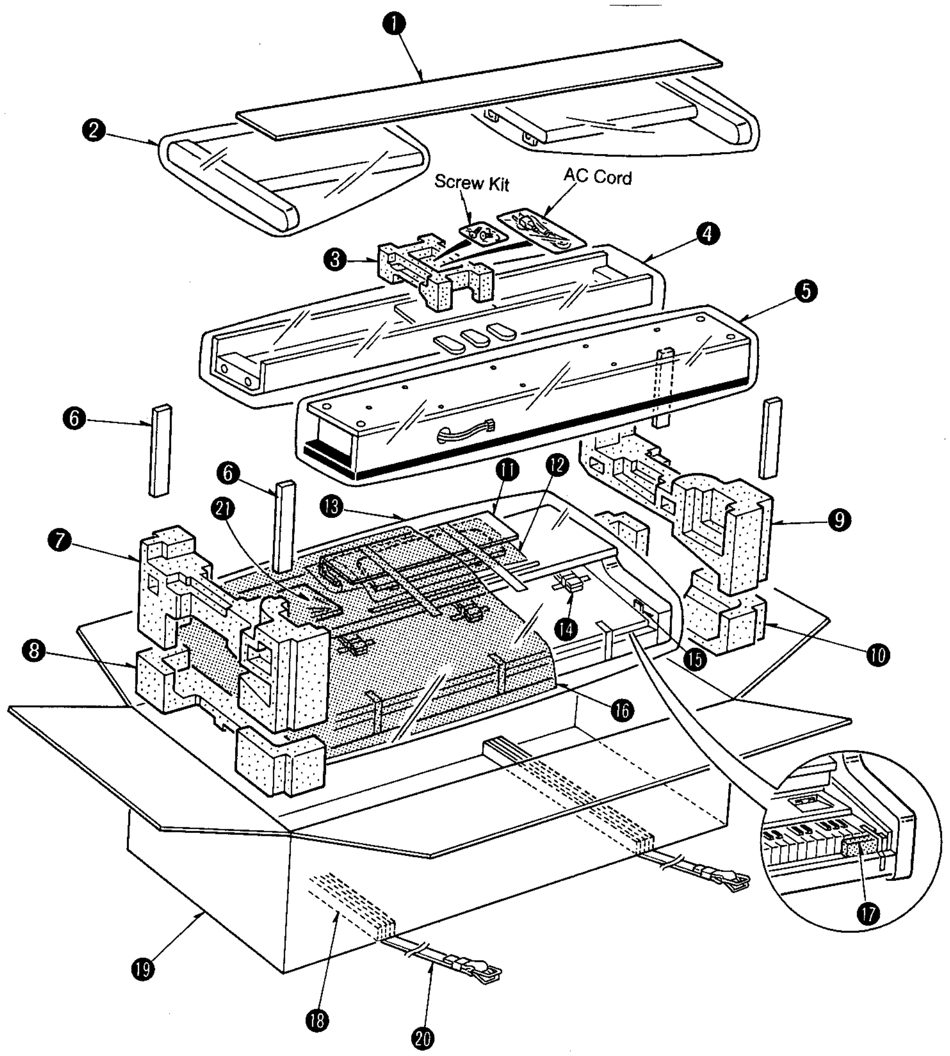
N1	XTW3+10Q	SCREW	44
N2	XTWSG2	SCREW WITH WASHER	1
N3	XYN4+F25	SCREW WITH WASHER	6
N4	SNEG2660A	SCREW	5
N5	XTB3+10A	SCREW	1
N7	XYN4+F16	SCREW WITH WASHER	4
N8	XTW3+8J	SCREW	8
N9	XTB4+10C	SCREW	4
N10	XTB35+12A	SCREW	16
N11	XNS12FZ	NUT	2
N12	QHDG043AA	SCREW WITH WASHER	4
N13	XYN3+F6	SCREW WITH WASHER	1
N14	XTB35+16A	SCREW	12
N15	XTN4+50AFZ	SCREW	2
N16	XTB35+20A	SCREW	2
N17	QHDG021AA	SCREW WITH WASHER	10
N18	XTT4+30AFZ	SCREW	4
N19	XTB3+10AFZ	SCREW	3
N20	XTS3+10AFZ	SCREW	10
N21	XTT4+12AFZ	SCREW	1
N22	XTB4+10B	SCREW	2
N23	XTT4+10A	SCREW	8
N24	XTT4+12A	SCREW	6
N25	QHDG004AA	SCREW	2
N26	XTT4+12A	SCREW	8
N27	SNE499-1	NUT	8
N28	XTW3+16JFZ	SCREW	12
N29	XYN4+F16FZ	SCREW WITH WASHER	3
N30	XTB35+14A	SCREW	1
N31	QHDG032AB	SCREW WITH WASHER	4
N32	QHDG016AB	SCREW WITH WASHER	8
N33	XTT4+25AFZ	SCREW	10
N34	XTN4+16F	SCREW WITH WASHER	1
N35	XTT4+16A	SCREW	2
N40	XTV3+10C	SCREW	2
N41	XTB4+12A	SCREW	4
N42	XTW3+10T	SCREW	14

	Ref. No.		Part No.	Description	P/S
	74		QMFG1104AA	FELT	2
○	75	AS	QMWG1001AB	WHITE KEY (FIRST OCTAVE A KEY)	1
○	76	AS	QMWG1002AB	WHITE KEY (B KEY)	8
○	77	AS	QMWG1003AB	WHITE KEY (C KEY)	7
○	78	AS	QMWG1004AB	WHITE KEY (D KEY)	7
○	79	AS	QMWG1005AB	WHITE KEY (E KEY)	7
○	80	AS	QMWG1006AB	WHITE KEY (F KEY)	7
○	81	AS	QMWG1007AB	WHITE KEY (G KEY)	7
○	82	AS	QMWG1008AB	WHITE KEY (A KEY)	7
○	83	AS	QMWG1009AB	WHITE KEY (TOP OCTAVE C KEY)	1
○	84	AS	QMWG2001AC	BLACK KEY	36
	85		SUSG534A	SPRING	88
	86		QMWG8019CA	HAMMER (BLACK KEY)	36
	87		QMWG8017DA	HAMMER (WHITE KEY)	52
	88		SHGG9121A	RUBBER CAP (HAMMER)	88
	89	PA	QMWG8024BA	KEY GUIDE	88
	90	ABS	QMWG8022AA	FULCURUM (4PCS.ON ONE)	1
	91	ABS	QMWG8021AA	FULCURUM (12PCS.ON ONE)	7
	92		SHRGA9080A	SPONGE	2
	93		QMFG1073AA	FELT	2
	94		SHSG3461A	FELT	1
	95		QMFG1101AA	FELT	2
	96		QMFG1061AA	FELT	2
	97		QMFG1060AA	FELT	2
	98		QMFG1086AA	FELT	2
	99		QMWG6006AAK	RUBBER SWITCH (8PCS.ON ONE)	11
	100		SHRG9751A	P.C.B.HOLDER	24
	101		QMWG3003CA	CHASSIS	1
	102		SUWG3157A	ANGLE	2

SCREWS & WASHERS

N1	XTW3+10Q	SCREW	44
N2	XTWSG2	SCREW WITH WASHER	1
N3	XYN4+F25	SCREW WITH WASHER	6
N4	SNEG2660A	SCREW	5
N5	XTB3+10A	SCREW	1
N7	XYN4+F16	SCREW WITH WASHER	4
N8	XTW3+8J	SCREW	8
N9	XTB4+10C	SCREW	4
N10	XTB35+12A	SCREW	16
N11	XNS12FZ	NUT	2
N12	QHDG043AA	SCREW WITH WASHER	4
N13	XYN3+F6	SCREW WITH WASHER	1
N14	XTB35+16A	SCREW	12
N15	XTN4+50AFZ	SCREW	2
N16	XTB35+20A	SCREW	2
N17	QHDG021AA	SCREW WITH WASHER	10
N18	XTT4+30AFZ	SCREW	4
N19	XTB3+10AFZ	SCREW	3
N20	XTS3+10AFZ	SCREW	10
N21	XTT4+12AFZ	SCREW	1
N22	XTB4+10B	SCREW	2
N23	XTT4+10A	SCREW	8
N24	XTT4+12A	SCREW	6
N25	QHDG004AA	SCREW	2
N26	XTT4+12A	SCREW	8
N27	SNE499-1	NUT	8
N28	XTW3+16JFZ	SCREW	12
N29	XYN4+F16FZ	SCREW WITH WASHER	3
N30	XTB35+14A	SCREW	1
N31	QHDG032AB	SCREW WITH WASHER	4
N32	QHDG016AB	SCREW WITH WASHER	8
N33	XTT4+25AFZ	SCREW	10
N34	XTN4+16F	SCREW WITH WASHER	1
N35	XTT4+16A	SCREW	2
N40	XTV3+10C	SCREW	2
N41	XTB4+12A	SCREW	4
N42	XTW3+10T	SCREW	14

PACKING



■PACKING PARTS

	Ref. No.		Part No.	Description	P/S
			PACKING PARTS		
○	1		QPGG0355AA	PROTECTION CARDBOARD	1
	2	PE	QPFG006AA	POLYETHYLENE BAG	2
○	3	PS	QPNG0594AA	PAD	1
	4	PE	QPFG026AA	POLYETHYLENE BAG	1
	5	PE	QPFG012AA	POLYETHYLENE BAG	1
○	6		QPQG042AB	PROP	4
○	7	PS	QPNG0590AA	PAD	1
○	8	PS	QPNG0592AA	PAD	1
○	9	PS	QPNG0591AA	PAD	1
○	10	PS	QPNG0593AA	PAD	1
○	11		QPGG0358AA	PAD	1
	12	PE	SPHG2240A	PROTECTION SHEET	1
	13	PE	QPFG013AA	POLYETHYLENE BAG	1
	14		SPNG5161A	SPACER	3
	15		SHSG2090A	FELT	2
	16	PE	QPHG028AA	PROTECTION SHEET	1
	17	PE	QPNG0556AA	SPACER	2
○	18		QPNG0600AA	PAD	2
○	19		QPGG0351AA	PACKING CASE, PAPER, SX-PR700	1
○	19		QPGG0351AB	PACKING CASE, PAPER, SX-PR700M	1
	20		SPSG40A	BAND	2

	Ref. No.	Part No.	Description	P/S
		OPERATING INSTRUCTION MANUAL		
○	21	QQFGPR900RAA	OPERATING INSTRUCTION MANUAL, EN EK EP X XL XR XS XD XT XM	1
○	21	QQFGPR900RBA	OPERATING INSTRUCTION MANUAL, M	1
○	21	QQFGPR900RCA	OPERATING INSTRUCTION MANUAL, MC EF	1
○	21-1	QQTG0414A	ENGLISH	1
○	21-2	QQTG0416A	FRANCAIS	1
○	21	QQFGPR900RDA	OPERATING INSTRUCTION MANUAL, EZ	1
○	21	QQFGPR900REA	OPERATING INSTRUCTION MANUAL, EW	1
○	21-1	QQTG0416A	FRANCAIS	1
○	21-2	QQTG0417A	DEUTSCH	1
○	21	QQFGPR900RFA	OPERATING INSTRUCTION MANUAL, EA	1
○	21	QQFGPR900RGA	OPERATING INSTRUCTION MANUAL, EH	1
○	21-1	QQTG0418A	NERDERLANDS	1
○	21-2	QQTG0416A	FRANCAIS	1
○	21-3	QQTG0417A	DEUTSCH	1